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ABSTRACT BOOK

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SPEAKERS ABSTRACTS

WHAT IS THE PLACE OF INTERVENTIONAL PAIN PROCEDURES IN PAIN MEDICINE

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Background: The size of Pain Medicine is nearly 80 billion USD in the world. These minimally invasive procedures use needles or electrodes targeted to specific nerves or regions, employing radiofrequency, ablation, endoscopy, intraspinal pumps, spinal cord stimulation, or neuromodulation techniques to treat chronic refractory pain. Significant progress has been made in these percutaneous methods in recent years.

Introduction: Pain specialists increasingly define themselves as “interventional pain physicians”, creating a misleading dichotomy between “pain medicine” and “interventional pain medicine”. A comprehensive pain specialist should integrate medication, rehabilitation, and interventional techniques. Unfortunately due to several reasons overuse of interventional procedures create a storm in pain medicine. A key factor is overuse, misuse, and fraud. In the United States, overuse, along with misuse, waste, and fraud, is considered one of the primary contributors to the high cost of healthcare.

This situation obstructs the effective use of interventional procedures—being applied in the right place, at the right time, and by the right professionals.

There are no legal regulations or restrictions regarding this issue.

Conclusion: There is a crisis in pain medicine with inadequate pain management, overuse of techniques, focus on higher profits and increased use of technology. A pain specialist with more training in interventional techniques will tend to prioritize procedures.

In conclusion, we are at a crossroads in pain science. We can either continue down the path of least resistance—embellishing evidence and exploiting loopholes in the reimbursement system or we can choose to invest in rigorous studies that examine both effectiveness and cost-benefit outcomes.

As a specialty, we can choose to address these concerns proactively through greater transparency and more rigorous research or we can continue ignoring the irreversible changes taking place—at our own expense.

SPEAKERS ABSTRACTS

POSTOPERATIVE PAIN MANAGEMENT – LESSONS LEARNT IN THE LAST 50 YEARS

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Despite five decades of advancement, postoperative pain management remains suboptimal for a huge number of patients. A persistent gap exists between clinical knowledge and patient satisfaction. One of the most concerning consequences of this is Chronic Post-Surgical Pain (CPSP), which affects a sizable minority and results in long-term reduction in quality of life. Although risk factors for CPSP have been well documented over the past 30 years, effective treatment remains elusive, and prevention strategies are limited. Furthermore, no major breakthroughs in systemic analgesics have emerged in decades.

In contrast, regional anesthesia (RA) has advanced significantly, particularly with the adoption of ultrasound guidance, which has improved the accuracy and safety of peripheral nerve blocks. The development of novel fascial plane blocks—such as TAP, ESP, and QL blocks—and the use of catheter techniques have expanded the role of RA in multimodal strategies and enhanced recovery protocols. Ultralong-acting local anesthetics, once expected to render catheter techniques obsolete, have generally been a disappointment. Of the two iconic neuraxial methods, the role of epidural analgesia is steadily declining due to complexity and side effects, while spinal anesthesia has seen a resurgence, with new indications and a revival of spinal catheter techniques. Regrettably, despite overwhelming evidence of efficacy, RA techniques remain grossly underutilized.

Intrathecal morphine (ITM) is among the most effective methods for prolonged postoperative analgesia (up to 24–48 hours). However, wider adoption is hindered by concerns over delayed respiratory depression and the resource-heavy “overmonitoring” requirements from ASA/ASRA. Current evidence shows that with contemporary doses, the risk of respiratory depression is no higher than with systemic opioids—suggesting a need to update restrictive protocols.

Acute Pain Services (APS) now exist in two main forms: a traditional physician-led model, and a nurse-led, anesthesiologist-supervised “low-cost” model introduced by us in 1991. The former has evolved into a selective service that mainly benefits patients receiving complex interventions like epidurals, PNBs, and PCA—and is also more expensive. The nurse-led model, adopted in many institutions with local adaptations, includes ward nurses and surgeons as integral contributors and is designed to benefit all surgical patients. Greater collaboration with surgeons—especially in adopting surgical regional techniques—is essential to address the dual challenges of undertreated pain and underuse of RA. Finally, generic “one-size-fits-all” pain guidelines fall short. The PROSPECT initiative offers procedure-specific, evidence-based recommendations (accessible at esraeurope.org/prospect) and represents a more individualized, practical approach to optimizing postoperative pain care.

SPEAKERS ABSTRACTS

CLINICAL TRIALS FOR CHRONIC PAIN INTERVENTIONS: CHALLENGES IN DESIGN AND INTERPRETATION

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Chronic pain is the leading cause of disability worldwide, by a far margin. The best treatments for chronic pain provide only modest relief, with most high-quality studies examining procedure interventions, including surgery, yielding negative or at best marginal results. Performing trials evaluating procedural interventions is challenging on many fronts: 1) the placebo effect for procedures is greater than that of medications and usually exceeds the intrinsic effect of a therapy; 2) the costs for funding placebo therapies can be exorbitant, in the tens of thousands of U.S. dollars. This has led to a disproportionately high percentage of interventional studies being funded by industry. 3) Industry-sponsored interventional studies, especially in the area of neuromodulation, have yielded dramatically higher effect sizes and response rates than non-industry-sponsored trials and database reviews; 4) What constitutes a sham treatment is not always clear. For example, the effect of epidural saline or local anesthetic is far greater than the effect of an intramuscular injection control group, and the effect of sham acupuncture exceeds that of a no-acupuncture control group. These challenges have led to a gap in the evidence base of procedures, wherein clinical studies tend to be much smaller, often leading to statistical fragility in high-quality blinded studies. Moreover, the interpretation of the evidence base differs dramatically when the reviewers and authors perform the procedure(s) being evaluated vs. when the reviewers do not. This is likely due to a greater ability of specialists to evaluate the technical quality of a procedure (e.g., was the epidural or radiofrequency procedure optimized, were the appropriate patients selected), but also to bias. For example, systematic and evidence-based reviews of epidural steroid injections are much more likely to report positive findings than similar reviews performed by non-interventionalists. Similar to non-interventional pain therapies, the risk factors for procedural treatment failure, including central sensitization, opioid use, secondary gain, psychopathology and greater disease burden, are the same barring procedural considerations (i.e., the size and type of spine pathology for spine surgery). In order to increase access to care, more and better research needs to be performed evaluating interventional procedures. Future trials should be adaptive, including multiple centers with diverse and representative populations, and compare interventions not only to sham interventions but also to other procedures and non-procedural standard of care.

SPEAKERS ABSTRACTS

ARTIFICIAL INTELLIGENCE TO UNCOVER SIGNATURES OF CHRONIC PAIN

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Artificial intelligence's (AI) role in chronic pain (CP) is in its initial phase, but it has the potential to drastically improve patient outcomes, reduce medical expenses, and enhance quality of life. It is transforming CP management by providing novel tools and procedures that enhance diagnosis, treatment, and patient outcomes.

The role of AI in the future of CP spans different areas; from the assessment of pain using unstructured clinical questions and facial expression models, to diagnosing the cause, planning personalized treatment modalities, its role in telemedicine, cognitive behavioral therapy for CP, and prediction of CP.

Adverse effects of AI application in CP management may include increased dependency of medical doctors on AI, leading to reduced his clinical and critical thinking, patient satisfaction and may also disrupt the doctor–patient relationship.

Further research should be conducted to explore the potential of AI in the field of CP diagnosis and management.

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SPEAKERS ABSTRACTS

THE ROLE OF OPIOIDS IN THE TREATMENT OF CANCER PAIN: THE LATEST GUIDELINES

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Opioids are the mainstay of treatment for cancer pain. Two recently published guidelines (1,2) provide guidance on using opioids for adults with pain caused by cancer or its treatment (1) and outline strategies for opioid conversion (2). Opioids should be offered to patients experiencing moderate-to-severe pain due to cancer or active anticancer treatment. It is no longer mandatory to use weak opioids for moderate pain. All strong opioids have similar efficacy, so the decision of which opioid is most appropriate should be based on availability, pharmacokinetic characteristics, and cost. Methadone is an exception and should only be prescribed by palliative care or pain specialists. Opioids should be initiated at the lowest effective dose, with IR formulations given as needed to establish an effective dose. The minimal clinically meaningful increase during titration is 25-50% of the total 24-hour dose. The guidelines include guidance on preventing and managing specific adverse effects (constipation, delirium/neurotoxicity, endocrinopathy, nausea and vomiting, pruritus, sedation, respiratory depression, urinary retention) and address opioid use in patients with renal and hepatic impairment. Strategies for opioid conversion, including pre-conversion assessments and post-conversion follow-up, have been developed. For the first time, an international consensus on conversion ratios between multiple opioids has been summarized. Current guidelines also provide recommendations for managing breakthrough pain. The ultimate goal is to reduce side effects and /or improve pain control in cancer patients who require opioids.

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2. Davis MP, et al. *Support Care Cancer* 2025;33:243-259

SPEAKERS ABSTRACTS

PERCUTENOUS CORDOTOMY FOR CANCER PAIN

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Objectives: Cancer pain is One of the most frequent and distressing side effects of cancer. Cordotomy is a procedure used to destroy the lateral spinothalamic tract in patients with cancer pain. Because most fibers in the anterolateral system decussate over two to five segments before entering the anterolateral columns, spinothalamic cordotomy aims to interrupt the spinothalamic tract ascending

Indications: Patients with unilateral somatic cancer pain and Compression of the plexus, roots, or nerves. Unilateral upper body pain (secondary to lung carcinoma, mesothelioma, or Pancoast tumors), Bilateral somatic intractable pain in the lower body and extremities, nociceptive pain at the onset of the disease, but in whom the pain may evolve to neuropathic form if the tumor infiltrates the brachial plexus, as in Pancoast tumors.

Conclusion: CT-guided percutaneous cordotomy is an effective procedure that should be used in the treatment of cancer-related pain problems. The safety of these procedures depends on correct patient selection and the experience of the physician.

SPEAKERS ABSTRACTS

SACRAL (CAUDAL EPIDURAL) PRF, “THE ROHOF TECHNIQUE”

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Introduction: The epidural Injection in the caudal (sacral) canal of local anesthetics is a frequently used method for treating lumboradicular pain, whereby addition of corticosteroids to the injection does not seem to make a difference (1). The explanation of the workings-mechanism remained speculative, but injection into the sacral canal seems to be a special spot. The parasympathetic ganglia in the sacral region could be the target by applying PRF caudal epidurally and inducing the cholinergic anti-inflammatoxy reaction (5) The 200V/m effective elctromagnetic field extends 5 cm around the shaft of the electrode. (6,11) Cells communicate with a field of 50-250V/m. PRF initially was used as a non-thermal alternative of the ablative CRF, but recent publications have revealed the workingmechanisms : PRF's electromagnetic field reduces oxidative cell stress by recombining radical pairs (8), this redox mechanism causes anti-inflammation and functional repair (9,12), PRF decreases nociceptive signalling, is improving synaptic function and injury repair by its anti-inflammatory effect (10). Combination of PRF with orthobiologics could have a synergistic effect (13).

In the first publication (2) of application of PRF in the distal sacral canal 3 patients with a postherpetic neuralgia were treated, with a positive effect in 2 of them. In a pilot study (3) 20 female Fibromyalgia (FM) patients treated with in total 42 sacral PRF had a mean VAS score improvement from 7.8 to 3.3 with a mean duration of 4.7 months. There were no side effects.

Indications Sacral PRF: Since 2009 the technique is being successfully used by many colleagues all over the world. Tenderness over almost all spinous processes on physical examination in a patient lying in prone position could be a sign of chronic neuropathic pain as in central sensitization (inflammation (14). (Personal observation with 16 years experience in over 2000 cases) In many clinical syndromes mentioned below, you can find this phenomenon, and sacral PRF treatment could be helpfull.

CLINICAL SYNDROMES

- Central Sensitization (neuro-inflammation) (14)
- Postherpetic Neuralgia
- Fibromyalgia
- Chronic Neuropathic Pain
- Failed Back Spinal pain Syndrome
- Failed Neck Spinal pain Syndrome
- Myalgic Encephalopathy
- Chronic Fatigue Syndrome
- Chronic Coccygodynia
- Chronic Pelvic Pain
- Chronic Idiopathic Axonal Polyneuropathy
- Distal Symmetrical Polyneuropathy

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The **Sacral PRF Technique** is described in the first publication (2) and 3 instruction videos are available on YouTube: <https://www.youtube.com/watch?v=ZXD5aVdxkZQ&t=19s>
<https://www.youtube.com/watch?v=sjbQkj0knE0>
<https://www.youtube.com/watch?v=Y0pxyXYPbCU&t=38s>

Another important clinical finding: you always should look for the trigger causing the central sensitization (CS), for example a patient with a chronic radiculopathy S1 with a CS, not reacting on a PRF DRG S1, only was healed by combination of the PRF DRG S1 with a sacral PRF in the same session.

Basic scientific work: treatment with sacral PRF on a rat lumbar disc neuropathic pain model (7) showed a multisegmental anti-inflammatory effect by stimulation of the immuun system.

Results

The first analysis of 109 cases in my practice, with 12 months follow up had >50 % relief in 66% of cases, mean duration of effect 4.7 months.

They were diagnosed as:

Osteoarthritis, Cancer pain, CRPS, PHN: Post Herpetic Neuralgia, FM: FibroMyalgia (3), CNPP: Chronic NeuroPathic Pain, FBSS: Failed Back Surgery Syndrome, FNSS: Failed Neck Surgery Syndrome, ME: Myalgic Encephalopathy, CFS: Chronic Fatigue Syndrome. In case of a recidive the procedure could be repeated with about the same result.

There were no side effects.

Other publications (4):

Atim 2011: 21 cases of **coccygodynia** with 6 Months FU: Vas 8 to 3.

Ullenhach 2013: **Paraplegic patients** 7 cases, 5 positive VAS 8 to 3

Cartagena-Sevilla 2017: **Chronic pelvic pain**, 2 cases VAS 8 to 3

Lee 2018: **Chronic idiopathic axonal neuropathy** no 20, VAS 8 to 3 FU 3 mo

Mousa 2022: **Distal symmetrical Polyneuropathy** no 24, VAS 6 to 2

Kose 2022: **Failed Back surgery syndrome** no 30, VAS 7 to 4.5

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SPEAKERS ABSTRACTS

NEW MODALITIES IN NEUROMODULATION

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Neuromodulation devices are approved in the world for the treatment of movement disorders, epilepsy, pain, and depression, and are used off-label for other indications. In the near future, advances in our understanding of neuroanatomical networks and in the mechanism of action of stimulation, coupled with developments in material science, miniaturization, energy storage, and delivery, will expand the use of neuromodulation devices. Neuromodulation approaches are flexible and modifiable. Stimulation can be targeted to a dysfunctional brain focus, region, or network, and can be delivered as a single treatment, continuously, according to a duty cycle, or in response to physiologic changes. Programming can be titrated and modified based on the clinical response or a physiologic biomarker. In addition to keeping pace with clinical and technological developments, physicians in 10 years will need to navigate complex ethical and economic considerations to ensure access to neuromodulation technology for a rapidly expanding population of patients.

Techniques for neuromodulation serve as effective routes to care of patients with many types of challenging conditions. Continued progress in this field of medicine will require (1) improvements in our understanding of the mechanisms of neural control over organ function and (2) advances in technologies for precisely modulating these functions in a programmable manner. Recent research on devices that are relevant to both of these goals, with an emphasis on multimodal operation, miniaturized dimensions, biocompatible designs, advanced neural interface schemes, and battery-free, wireless capabilities. A future that involves recording and modulating neural activity with such systems, including those that exploit closed-loop strategies and/or bioresorbable designs, seems increasingly within reach.

What will be discussed here is an overview of systems in use today and those that are anticipated and highlights the opportunities and challenges for the future, some of which are technical, but most of which will be addressed by learning about brain networks, and from rapidly growing experience with neuromodulation devices.

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SPEAKERS ABSTRACTS

NEUROMODULATION FOR THE TREATMENT OF FACIAL PAIN AND HEADACHES

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Pain in the head and neck is mediated by afferent fibers in the trigeminal nerve, nervus intermedius, glossopharyngeal and vagus nerves and the upper cervical roots via the occipital nerves. Stimulation of these nerves by compression, distortion, exposure to cold or other forms of irritation or by a lesion in central pathways may give rise to stabbing or constant pain felt in the area innervated. The cause may be clear, but in some cases there may be no cause apparent for neuralgic pain. The evaluation begins with a thorough history and physical exam of the face and upper cervical nerve roots. Radiological examination usually consists of an MRI dedicated to facial pain.

Once the differential diagnosis has been established, treatment begins with pharmacological therapy, which typically involves anti-seizure medication. Minimally invasive injections are next on the algorithm if pharmacological therapy is ineffective. The targets are typically the trigeminal nerve, glossopharyngeal nerve, occipital nerves, and the sphenopalatine ganglion. If these therapies do not alleviate the pain, central and peripheral neuromodulation can be considered. Central neural modulation targets include the trigeminal ganglion, and the nucleus caudalis in the upper cervical spine. Peripheral neural modulation targets the occipital nerves, and the peripheral branches of the trigeminal nerve. A trial of stimulation should always proceed the implantation of a permanent system. The experience of the treating physician is important to improve efficacy and to decrease potential complications. The evidence for the use of these devices is level IV and V.

SPEAKERS ABSTRACTS

THE VALUE OF REGISTRIES IN PAIN MANAGEMENT AND PALLIATIVE CARE

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Clinical registries are increasingly recognized as essential tools in pain therapy and palliative care. By collecting and analyzing real-world data in a systematic and structured way, registries support clinical decision-making, improve care quality, guide research, and inform healthcare policies.

Pain and Palliative care Registries enhance patient outcomes by tracking treatment effectiveness, supporting personalized care, and enabling symptom monitoring. They allow clinicians to make evidence-based decisions on pharmacological, interventional, or alternative treatments, tailored to individual patient needs and disease profiles.

From a research standpoint, Pain and Palliative care registries provide large, real-life datasets that enable comparisons across regions or institutions. They help identify care gaps, inconsistencies in clinical practice, and areas where scientific evidence is lacking. Furthermore, registry data supports longitudinal studies and contributes to the development of clinical guidelines and policy strategies in Pain therapy and Palliative care.

Registries also play a critical role in quality assurance. They help assess adherence to clinical protocols, monitor variations in outcomes, and guide continuous improvement initiatives in healthcare systems. Moreover, they serve as tools for regulatory bodies and payers by providing data needed for drug approvals, reimbursement decisions, and accreditation processes.

In Greece, significant progress has been made through the efforts of the Hellenic Society for Pain Management and Palliative Care (PARH.SY.A.). Between 2016 and 2020, PARH.SY.A. completed the first national registry on neuropathic pain, documenting 2,334 cases treated in specialized Pain clinics. This milestone laid the foundation for broader registry initiatives.

Building on this success, PARH.SY.A. is now launching the Chronic Pain and Palliative Care Registry, aiming to include all forms of chronic pain. This registry adopts the ICD-11 classification system, allowing more precise categorization of pain conditions and supporting harmonized clinical practices and high-quality epidemiological research.

What distinguishes this initiative is its comprehensive data collection approach from Public and Private Pain and Palliative care Clinics Across Greece.

Information will be gathered from:

- Pain therapists, detailing diagnosis, treatments, and pain progression;
- Patients, reporting quality of life and productivity loss;
- Caregivers, documenting the emotional and economic burden of caregiving in patients with serious health suffering.

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By capturing the full scope of chronic pain—from the clinical to the humanistic and economic aspects—this registry will not only improve individual patient care but also support national strategies for Pain management and Palliative care.

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SPEAKERS ABSTRACTS

THE ANTI-INFLAMMATORY ACTION OF PULSED RADIOFREQUENCY

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We present a hypothesis on the mode of action of PRF applied transcutaneously to obtain a regional or systemic anti-inflammatory effect in patients with pain or an inflammatory condition without pain. We named this process RedoxPRF. Cell stress causes an increase in production of ROS, disturbing the redox equilibrium and causing oxidative stress (OS). The OS causes inflammation and an increase in sympathetic nervous system activity. In acute phase this causes immune paralysis and in chronic form leads to immune tolerance and chronic inflammation. It is hypothesized that Redox-PRF causes a reduction of free radicals by a recombination of radical pairs (Radical Pair Mechanism). For systemic application the target cells are the intravascular immune cells that pass through the activated area as on an assembly line, for example a plate electrode will be over the axillary artery and the other over the forearm in a counterplanar disposition. For local application the electrodes will cover the area of interest using preferentially a counterplanar arrangement. The intensity of current applied is meticulously calculated to create an Electrical Field between 40-250 V/m that are values considered in the physiological range and used by cells to communicate and the electrode size is also chosen to avoid temperature issues, maintaining a current density up to 7mA/cm². These parameters avoid any additional stress by the RedoxPRF.

Conclusions: 1) RedoxPRF works selectively in OS, with an effect on the most upstream level of chain of events. 2) RedoxPRF has the potential of being useful in the treatment of inflammatory diseases and stage 4 cancer. 3) In the treatment of pain it is a new method because it is not ablation or stimulation. 4) Controlled studies must be conducted to develop this promising new field in medicine.

SPEAKERS ABSTRACTS

EVIDENCE-BASED ULTRASOUND-GUIDED MSK PAIN PROCEDURES

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Background: Musculoskeletal (MSK) pain is one of the most prevalent causes of disability and functional limitation globally. Accurate diagnosis and targeted treatment are essential for effective pain management. Ultrasound-guided procedures have gained increasing attention for their ability to provide precise, real-time visualization in MSK interventions.

Methods: This lecture presents an evidence-based overview of ultrasound-guided procedures for MSK pain. Current literature, including randomized controlled trials and clinical guidelines, was reviewed to evaluate the safety, accuracy, and efficacy of these interventions. Focused procedures include intra-articular injections, bursa injections, tendon sheath and ligament injections and peripheral nerve blocks.

Results: Evidence shows that ultrasound-guided MSK procedures lead to improved accuracy, reduced complication rates, and enhanced clinical outcomes compared to landmark-based techniques. They allow direct visualization of soft tissues and neurovascular structures, reducing the risk of inadvertent injury. Additionally, patient satisfaction and response to therapy are significantly higher in ultrasound-guided approaches.

Conclusion: Ultrasound-guided MSK pain procedures represent a valuable, evidence-supported component of modern pain management. When integrated into multimodal treatment plans, they offer targeted relief with a favorable safety profile. Clinicians should consider incorporating ultrasound guidance into routine practice to optimize procedural success and patient outcomes.

SPEAKERS ABSTRACTS

CERVICAL LYSIS. THINGS TO BE CAREFUL!

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Background: Lysis procedure was originally developed by Dr. Racz in 1989, initially described using a caudal approach. Subsequently, cervical lysis (CL) was developed based on this method.

Methods: When performing CL, there are certain precautions that must be taken, which differ from the caudal lysis procedure.

Results: The cervical epidural space is narrower than the lumbar epidural space. Therefore, meticulous care must be taken while advancing the needle into the cervical epidural space. Another important point is that the ligamentum flavum is thinner in the cervical region compared to other regions. Additionally, midline fusion defects in the ligamentum flavum may be present in the cervical area. Because of these defects, a loss of resistance may not always be felt when the needle enters the cervical epidural space. For this reason, the 3D technique (direction, depth, direction) should be applied while advancing the needle. The needle tip's direction in the AP view and its depth in the lateral view must be monitored.

During the epidurogram, contrast media may not exit through the lateral foramina due to epidural scarring, disc herniation, or similar causes. Fluids injected into the epidural space follow the path of least resistance. This phenomenon is called perivenous counter spread. The localized fluid can cause compression on the spinal cord, potentially impairing blood flow and resulting in ischemic and/or traumatic injury. Awake patients may report sudden onset pain radiating to the chest, both arms, or even the lower extremities when the hydrostatic pressure increase. Therefore, deep sedation should be avoided during the procedure.

Conclusion: Although CL is an effective treatment, it has potentially serious complications. Therefore, it must be performed with great caution, and the patient should be closely monitored.

SPEAKERS ABSTRACTS

MEASURING IMPACT AND SUCCESS OF A RESEARCH FELLOWSHIP IN REGIONAL ANESTHESIA AND PAIN MEDICINE

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Objective: Measuring success in a research fellowship, particularly within a subspecialty like Regional Anesthesia and Pain Medicine, requires a multidimensional approach. Success cannot be defined by publication count alone; it must reflect the broader academic, clinical, and educational goals of the program.

Methods: Using our experience at Hospital for Special Surgery (HSS) over 13 years we identified important components of a successful research fellowship.

Results: At HSS, the RAAPM Research Fellowship emphasizes not only scholarly productivity but also the integration of clinical and health services research into practice. Fellows design and complete projects aligned with institutional priorities such as patient safety, peri-operative efficiency, and pain management outcomes. In doing so, trainees acquire measurable skills in research methodology and design.

Key indicators of fellowship success include: (1) scholarly output – manuscripts accepted in peer-reviewed journals, national and international presentations, and contributions to guidelines or institutional protocols; (2) mentorship & collaboration – sustained engagement with faculty, interdisciplinary teamwork, and mentoring of junior trainees; (3) clinical impact – translation of findings into practice changes or quality improvement initiatives; (4) fellow satisfaction – feedback collected through exit interviews, surveys, and informal check-ins throughout the year; (5) career trajectory – where fellows go next: academic appointments, leadership roles, and continued contributions to research and education.

We also consider qualitative growth such as personal development, leadership in academic initiatives, and the ability to independently generate and execute meaningful research questions to be crucial. The fellows are encouraged to pursue projects with longitudinal impact, fostering a research culture that extends beyond the fellowship year.

While there is no universally accepted comprehensive framework for evaluating research fellowships, we draw on models like Kirkpatrick's four levels of evaluation and Boyer's model of scholarship to think more holistically about success – beyond outputs, toward impact.

Conclusion: Looking at various aspects of success, the goal is to evaluate how effectively the program cultivates future leaders in regional anesthesia research who will contribute through rigorous inquiry and lasting academic impact.

SPEAKERS ABSTRACTS

FROM PIONEERS TO NEW LEADERS: “GENERATIONAL PERSPECTIVES IN RA AND PAIN MANAGEMENT IN GREECE: REPRESENTATIVE OF RA, INTERVENTIONALISTS AND BOOMERS GENERATION

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A Boomer is a person born in the years following the Second World War from 1946 to 1964 when there was a temporary marked increase in the birth rate. As I have been born in 1964, it is both an honor and a privilege to speak as a representative of the Boomer Generation in the field of regional anesthesia and interventional pain management in Greece.

When many of us began our careers, regional anesthesia was largely limited to landmark techniques and basic spinal or epidural blocks. Pain management, if it existed formally, was often confined to acute postoperative pain and largely pharmacological approaches. But what we lacked in technology, we made up for in passion. We pushed for training, we organized workshops, and we embraced the few international collaborations we could afford at the time.

We established pain centers in public hospitals, lobbied for recognition of chronic pain as a public health issue, and advocated for formal education in regional anesthesia mentoring the next generations of physicians although we faced skepticism, limited funding, bureaucratic barriers, and at times, professional isolation.

As representatives of the Boomer Generation, we find ourselves to be the bridge between past limitations and future possibilities. We must reflect what we have achieved but to ensure that we pass on what we have learned — ethically, practically, and with humility. We may be passing the torch, but we are not stepping back.

We must foster dialogue between us and the newer generations who are entering the field with fresh enthusiasm and digital fluency. The future depends on mutual respect, mentorship, and a shared commitment to innovation without losing the wisdom of experience.

May we continue to work together — across specialties and generations — to ensure that patients in Greece receive the best possible care in RA and pain management.

SPEAKERS ABSTRACTS

FROM PIONEERS TO NEW LEADERS: GENERATIONAL PERSPECTIVES IN RA AND PAIN MANAGEMENT IN GREECE REPRESENTATIVE OF RA, INTERVENTIONALISTS AND GENERATION X

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Generation X (often shortened to **Gen X**) is the demographic cohort following the Baby Boomers and preceding Millennials. In the field of anesthesiology, Generation X (born 1965-1980) represents a significant portion of the workforce, though they are fewer in number compared to Baby Boomers. They are known for their independence, straightforwardness, and strong work-life balance orientation. They often hold mid-level positions and value loyalty to themselves and their families over institutions, especially after witnessing economic instability and downsizing.

We aim to provide a comprehensive overview of the current landscape and emerging trends in regional anesthesia and pain management in Greece, bringing together insights from regional anesthetists, interventional pain specialists, and Generation X practitioners.

We explore the evolution of regional anesthesia techniques in the Greek healthcare system, emphasizing the growing integration of ultrasound-guided approaches, the expansion of nerve block indications, and the adoption of evidence-based perioperative analgesia protocols. Challenges such as resource limitations, training disparities, and variability in clinical practice across regions are also addressed.

From the perspective of interventionalists, the discussion highlights advancements in minimally invasive procedures for chronic pain, including radiofrequency ablation, neuromodulation, and fluoroscopy-guided interventions. Emphasis is placed on the importance of multidisciplinary collaboration, early referral, and personalized patient care in improving outcomes. Generation X anesthesiologists and pain physicians offer a unique viewpoint, balancing traditional foundations with a strong drive toward innovation, digital integration, and patient-centered models. Their role is crucial in mentoring younger colleagues, adopting international guidelines, and bridging the generational gap in practice patterns.

We underscore the need for national strategic planning, continued professional development, and the creation of clinical networks to support high-quality, equitable pain management and regional anesthesia services across the country. We conclude with a call to action for stronger academic collaboration, investment in technology, and a unified voice in shaping future policy.

SPEAKERS ABSTRACTS

GENERATION Z PERSPECTIVES ON REGIONAL ANAESTHESIA AND PAIN MEDICINE

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Background: Generation Z (born between 1997 and 2012) is reshaping expectations in healthcare. They are the first generation to have always had internet and social networking. Generation Z is driving a shift towards patient-centered and non-pharmacological approaches. They expect customized, tech-based education with practical learning.

Methods: A narrative review was conducted examining Generation Z's perspective in healthcare, regarding Regional Anaesthesia (RA) and Pain Medicine.

Results: Generation Z, reluctant towards systemic opioids, expresses interest in RA due to its sparing benefits and enhanced recovery. However, RA awareness remains limited unless patients actively engage in preoperative discussions. Familiar with technology, Generation Z leverages innovations, such as artificial intelligence (AI) tools and virtual reality (VR). Seeking training options, they favor digital tools and personalized education, expressing preference on simulation, webinars and hands-on training programs.

Generation Z's strong social awareness and emphasis on holistic wellness support their embrace of non-conventional pain management. They value VR-based pain distraction, wearable technologies, and alternative treatments like acupuncture, chiropractic care, and reflexology. Despite their preference for drug-free solutions, U.S. audits reveal a rise in ketamine use—not only recreationally but also as a form of self-medication for chronic pain. This trend reflects deeper mental health challenges and underscores the need for empathetic care that addresses both the psychological and physiological aspects of pain. In the realm of pain medicine education, literature indicates a shift away from traditional lectures toward multimedia-based instruction. Adopting a modern, flipped-classroom curriculum tailored to Generation Z's learning preferences is essential to align education with evolving healthcare demands.

Conclusion: while Generation Z's values align with foundational healthcare principles, clinical practice must evolve to meet their unique expectations. Proactive digital education, technology-integrated care, and interactive communication are essential to effectively engage this generation.

SPEAKERS ABSTRACTS

THE ROLE OF A PAIN SPECIALIST IN A PALLIATIVE TEAM

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Pain is a prevalent symptom in patients during the palliative phase. This pain markedly impairs the quality of life and complicates clinical decision-making in a context centered on symptom control and quality of life during the last months to live. Adequate pain management necessitates a thorough assessment of the multidimensional nature of pain, encompassing somatic, psychological, social and existential dimensions.

Pain specialists have advanced expertise in evaluating these complex pain profiles and formulating stepwise, individualized therapeutic strategies. While conventional pharmacological and non-pharmacological interventions adequately address pain in many cases early on, a subset of patients experience progressive refractory symptoms that require more specialized approaches.

Minimal invasive treatment strategies such as neurolytic sympathetic or peripheral nerve blocks, intrathecal drug delivery systems, percutaneous cordotomy, and lower end blocks—have demonstrated efficacy in alleviating intractable pain in this population when timely applied. However, these procedures are associated with inherent risks and potential complications, underscoring the necessity for rigorous training, precise technique, and diligent post-procedural monitoring.

Notwithstanding their clinical utility, these advanced interventions remain under-recognized by many healthcare providers, potentially limiting patient access to optimal pain relief. Accordingly, expanding awareness and fostering interdisciplinary collaboration between pain specialists and palliative care teams are imperative.

Such integration facilitates comprehensive symptom management, promotes informed decision-making, and ultimately enhances the quality of life for patients navigating the complexities of end-of-life care.

SPEAKERS ABSTRACTS

FASCIAL PLANE BLOCKS IN CARDIOTHORACIC SURGERY: A GAME-CHANGER FOR PERIOPERATIVE CARE

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Fascial plane blocks (FPBs) are rapidly transforming perioperative care in cardiothoracic surgery. Ultrasound-guided techniques such as erector spinae plane (ESP) block, serratus anterior plane (SAP) block, and pectoral nerve (PECS) blocks are emerging as safe and effective alternatives to traditional thoracic epidurals and paravertebral blocks 1, 2. These methods are easier to perform, carry fewer risks, and can be used in a broader range of patients, including those requiring anticoagulation 3.

By targeting nerves through fascial tissue planes rather than direct nerve contact, FPBs offer reliable analgesia while significantly reducing opioid use. Studies have shown improved pain scores, fewer opioid-related side effects, and faster postoperative recovery 4, 5. Patients benefit from earlier mobilization, better respiratory function, and shorter hospital stays—key elements of Enhanced Recovery After Surgery (ERAS) protocols 6.

In cardiac and thoracic procedures such as sternotomy, thoracotomy, and minimally invasive surgeries, FPBs have proven to be adaptable and effective. Their compatibility with anticoagulated patients further underscores their growing clinical value 7.

As more evidence supports their utility, FPBs are shifting from novel techniques to standard practice. They represent a practical, patient-centered approach to perioperative pain control—simple in execution, profound in impact, and well-aligned with modern goals for surgical recovery and opioid sparing techniques.

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SPEAKERS ABSTRACTS

REPRESENTATIVE OF INTERVENTIONALISTS & MILLENNIALS GENERATION

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The Millennial generation, born between 1981 and 1996, represents a dynamic cohort of medical professionals who came of age during a time of rapid technological, educational, and cultural transformation. As interventionalists, Millennials are uniquely positioned at the crossroads of innovation and established clinical practice. Trained in an era defined by evidence-based medicine, digital tools, and interdisciplinary collaboration, they are reshaping the approach to pain and regional anaesthesia.

Millennial interventionalists are highly adaptable, technologically fluent, and open to integrating novel techniques into traditional frameworks — including ultrasound-guided procedures, neuromodulation, regenerative therapies, and AI-driven diagnostics. Their practice is marked by a patient-centered philosophy, a focus on functional outcomes, and an emphasis on quality of life. At the same time, they face distinct challenges: navigating hierarchical medical structures, addressing gaps in mentorship, and managing increasing clinical demands in a rapidly evolving healthcare system.

This generation brings a collaborative spirit to multidisciplinary care, advocating for standardized protocols, better access to interventional techniques, and stronger integration of interventional rheumatology within national guidelines. As both learners and leaders, Millennial interventionalists are bridging generations — respecting the legacy of senior pioneers while mentoring the incoming Generation Z workforce.

In the context of RA and pain management in Greece, their contribution is vital. Millennials are not only inheriting the responsibility of care but also actively transforming it — embracing innovation without abandoning clinical rigor. Their perspective is essential for shaping a modern, inclusive, and sustainable model for interventional pain and rheumatologic practice.

ORAL PRESENTATIONS ABSTRACTS

ORAL PRESENTATIONS I

OP1

SILENT MODULATORS: UNVEILING THE ENDOCANNABINOID SYSTEM'S ROLE IN HUMAN PAIN PROCESSING

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Background: The endocannabinoid system (ECS)—comprising endogenous ligands, receptors, and metabolic enzymes—has garnered increasing interest as a key player in the modulation of pain. While the therapeutic use of cannabinoids remains controversial, understanding the role of the ECS itself in human pain physiology may unlock novel, endogenous pathways for safer and more effective analgesia.

Methods: This narrative review synthesizes findings from clinical and translational studies published between 2015 and 2024, identified through comprehensive searches in PubMed, Scopus, and the Cochrane Library. Emphasis was placed on human studies exploring the role of key ECS components—anandamide (AEA), 2-arachidonoylglycerol (2-AG), cannabinoid receptors CB1 and CB2, and enzymes such as FAAH and MAGL—in various pain contexts, including acute, chronic, inflammatory, and neuropathic pain.

Results: Evidence indicates that the ECS actively participates in pain modulation through both central and peripheral mechanisms. Altered levels of AEA and 2-AG have been observed in patients with chronic pain, suggesting an adaptive response to nociceptive stress. CB1 receptors primarily modulate central nociceptive pathways, while CB2 receptors are involved in peripheral immune and inflammatory responses. Pharmacological modulation of the ECS—especially through FAAH inhibition—has shown analgesic potential in early-phase trials without the psychoactive effects of phytocannabinoids. Nonetheless, significant variability in study design, biomarker measurement, and patient populations limits firm conclusions.

Conclusions: The ECS represents a promising, underexplored target in the landscape of pain management. While preclinical insights have laid the groundwork, further high-quality clinical research is essential to translate ECS modulation into practical, individualized pain therapies. This review highlights the need for standardized methodologies and interdisciplinary collaboration to fully harness the body's own pain-relieving system.

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ORAL PRESENTATIONS ABSTRACTS

OP2

THE MICROBIAL CODE OF PAIN: EXPLORING GUT-BRAIN INTERACTIONS IN ANALGESIA

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Background: Emerging research suggests that the human gut microbiome—a complex ecosystem of microorganisms—plays a pivotal role in the bidirectional communication between the gastrointestinal tract and the central nervous system, commonly referred to as the gut-brain axis. This interplay extends into nociceptive processing and chronic pain modulation, involving immune, endocrine, and neural pathways. Understanding how microbial alterations influence chronic pain may open new frontiers in personalized pain management strategies.

Methods: This narrative review synthesizes recent findings from preclinical and clinical studies published over the last decade, focusing on the interaction between gut microbiota and chronic pain conditions such as fibromyalgia, irritable bowel syndrome, neuropathic pain, and chronic low back pain. Key mechanisms—including microglial activation, short-chain fatty acid production, neuroinflammation, and vagal nerve signaling—were examined. Literature was sourced from PubMed, Scopus, and Cochrane databases using relevant keywords (e.g., “gut microbiome,” “chronic pain,” “gut-brain axis,” “dysbiosis,” “pain modulation”).

Results: Multiple studies demonstrate altered microbial diversity and composition (dysbiosis) in chronic pain populations, with consistent findings of reduced beneficial bacteria (e.g., *Bifidobacterium*, *Faecalibacterium*) and increased pro-inflammatory taxa. Animal models support a causative link between dysbiosis and hyperalgesia. Probiotic, prebiotic, and fecal microbiota transplantation interventions have shown preliminary promise in modulating pain thresholds and inflammatory markers, though human trials remain limited and heterogeneous.

Conclusions: The gut microbiome emerges as a novel and modifiable player in chronic pain pathophysiology. While causality remains to be firmly established in humans, ongoing translational research highlights its potential as a therapeutic target. Incorporating microbiome-based diagnostics and interventions may reshape future pain management paradigms, particularly within the framework of precision medicine.

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ORAL PRESENTATIONS ABSTRACTS

OP3

MACHINE LEARNING APPROACHES IN OUD: A FOCUS ON GENETICS INSIGHTS

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Objectives: The opioid use disorder (OUD) crisis poses significant health and social challenges worldwide. Genetic factors have been studied to identify individuals at higher risk for opioid misuse, aiming to develop targeted therapeutic options. Machine learning (ML) algorithms, with their proficiency in uncovering complex data patterns, hold promise for healthcare. This review assesses current literature on ML applications in predicting OUD risk through genetic markers, highlighting key findings and identifying potential novel anti-opioid medications.

Methods: A literature search was conducted in PubMed and Google Scholar to locate studies published between 2010 and 2024. These studies employed genetic and clinical data in ML classifiers to predict OUD risk.

Results: Model performance varied according to genetic variability among participants. Key findings identified potential drug candidates from the DrugBank database that may be repurposed for treatment based on established and novel opioid targets. The HEAL library was developed, which, through the integration of ML algorithms and the systematic simulation of the association of compounds with pharmacological targets, contributed to the prediction of potential drug interactions and the identification of new candidate treatments for pain and opioid dependence. Important genes such as 5-HT_{2A}, ABCB1, and GAL were highlighted for their role in classifying OUD risk.

Conclusions: Although promising, OUD's highly polygenic nature—with multiple genetic variants contributing to heritability—calls for broader population studies to enhance understanding of its genetic basis. Further research is also necessary to confirm the efficacy and safety of ML-identified drug candidates. Effective ML tools could enable healthcare providers to make more informed decisions in opioid treatment management.

ORAL PRESENTATIONS ABSTRACTS

OP4

INCIDENCE OF CHRONIC PAIN IN TRANSGENDER POPULATION AMONG CIS-GENDER POPULATION

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Research Aim: The aim of this research is to investigate the incidence and characteristics of chronic pain in transgender and gender-diverse (TGD) individuals compared to cisgender individuals. The study seeks to identify the unique biopsychosocial factors—including minority stress, medical marginalization, and trauma—that contribute to increased vulnerability to chronic pain within the TGD population.

Furthermore, it aims to inform inclusive, trauma-informed, and developmentally sensitive healthcare approaches that can improve pain outcomes and overall wellbeing for transgender individuals.

Method: This study is based on a narrative literature review of existing research on chronic pain in transgender and gender-diverse (TGD) populations. It synthesizes findings from large-scale studies, clinical reports, and emerging data on pediatric and adult populations, focusing on the intersection of chronic pain with factors such as minority stress, medical marginalization, and adverse childhood experiences. The approach aims to identify knowledge gaps and inform inclusive, trauma-informed models of care.

ORAL PRESENTATIONS ABSTRACTS

OP5

ARTIFICIAL INTELLIGENCE IN PAIN MEDICINE: APPLICATIONS AND ETHICAL IMPLICATIONS

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Pain remains a complex and subjective experience, especially challenging to assess in non-verbal or cognitively impaired patients. Artificial Intelligence (AI) offers promising tools to enhance the objectivity and precision of pain assessment and management.

Objectives: To explore and synthesize recent clinical applications of AI in pain medicine, focusing on detection, prediction, treatment optimization, and ethical considerations.

Methods: A targeted literature review was conducted using PubMed, Web of Science, and Google Scholar. Although no time restriction was imposed, the majority of studies were published between 2019 and 2024. Search terms included "AI", "pain recognition", "pain prediction", "machine learning", "EEG", and "HRV". From ~200 identified studies, we selected 10 representative papers based on clinical relevance and methodological rigor.

Results: Facial analysis tools such as PainChek™ Infant demonstrated high diagnostic accuracy (AUC = 0.96) in detecting pain in non-verbal populations, with rapid output (<3 seconds). Multimodal AI models integrating EEG, GSR, HRV, EMG, voice, posture, and facial expression achieved classification accuracies >90%. Predictive models for chronic postsurgical pain (CPSP) using perioperative and psychological data have shown strong clinical utility. Reinforcement learning has enabled real-time analgesic titration in PCA settings. Some commercial systems have obtained regulatory approval (e.g., CE marking), yet real-world clinical integration remains limited. Barriers include insufficient external validation, heterogeneous training datasets, clinician knowledge gaps, and ethical concerns regarding privacy, bias, and transparency.

Conclusion: AI is a transformative tool in pain medicine, enabling objective diagnostics and individualized pain control. Bridging the gap between innovation and implementation will require pilot clinical trials, regulatory clarity, and interdisciplinary education. Ethically aligned, transparent deployment is key to responsible adoption.

ORAL PRESENTATIONS ABSTRACTS

OP6

OPIOID-SPARING EFFECT OF DEXMEDETOMIDINE IN THE OPERATING ROOM: EVIDENCE FROM RANDOMIZED TRIALS

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Background: Opioids remain the cornerstone of perioperative analgesia but are associated with adverse effects such as nausea, vomiting, sedation, ileus, and risk of dependency. Dexmedetomidine (DEX), a selective α_2 -adrenergic agonist with sedative and analgesic properties, is increasingly used in multimodal protocols. We conducted a systematic review and meta-analysis to evaluate the opioid-sparing effect of intravenous dexmedetomidine in adult surgical patients.

Methods: A systematic search of PubMed and trial registries identified randomized controlled trials (RCTs) published between 2020 and 2025 evaluating intravenous dexmedetomidine (IV DEX) in adult surgical patients. Inclusion criteria were: (1) intraoperative IV DEX use, (2) comparison with placebo or standard opioid-based regimens, and (3) reported postoperative opioid consumption. Ten RCTs involving a total of approximately 1,350 patients were included. Mean differences (MD) in 24-hour opioid consumption (converted to morphine equivalents) were pooled using a fixed-effects model.

Results: Across diverse procedures—including laparoscopic, orthopedic, thoracic, neurosurgical, bariatric, and cardiac surgeries—IV DEX significantly reduced postoperative opioid consumption by a pooled mean of -7.8 mg morphine equivalents (95% CI: -8.45 to -7.14 ; SE: 0.33). Additional benefits included lower pain scores, reduced postoperative nausea and vomiting (PONV), shorter time to mobilization, and in select cases, improved sedation quality and reduced ventilator duration. No serious adverse events were reported; mild bradycardia was the most common side effect and was clinically manageable.

Conclusions: Intravenous dexmedetomidine provides a robust opioid-sparing effect and enhances postoperative recovery in adult surgical patients. Its favorable safety and efficacy profile support wider implementation in perioperative protocols. Further large-scale trials are warranted to define optimal dosing and evaluate long-term outcomes beyond 24 hours.

ORAL PRESENTATIONS ABSTRACTS

OP7

PERICAPSULAR NERVE GROUP (PENG) BLOCK FOR HIP OSTEOARTHRITIS PAIN: A CASE SERIES OF 20 PATIENTS

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Background: Hip osteoarthritis is a common chronic condition, primarily affecting the elderly, characterized by the presence of chronic pain, joint stiffness, and restricted movement. The PENG block is a recently described ultrasound guided (USG) technique for the blockade of all sensory branches to the hip capsule. Literature suggests that it may offer symptoms relief to patients not eligible for total hip arthroplasty. The aim of our study was to evaluate pain in patients with chronic hip pain following the administration USG PENG block.

Methods: The cohort included 20 patients from our Chronic Pain Department - 16 women and 4 men. All patients were classified as ASA III, hip osteoarthritis grade 3-4 according to Kellgren-Lawrence scale and mean baseline VAS score 7.2. They all received a standardized analgesic scheme of 3g Paracetamol daily and 50mg Tramadol SR every 12 hours. All underwent a USG PENG block, administering a mixture 13 ml of Ropivacaine 0.2 and dexamethasone 8 mg. Patients were reassessed after 4 weeks.

Results: Mean age of participants was 82.4 ± 5.7 years (range 78–89). After conservative treatment, mean VAS score remained 6.8. PENG block demonstrated reduction in mean VAS scores by 40% ($p < 0.001$), accompanied by a 35% increase in PHQ-9 scores ($p < 0.001$). No complications were reported during the follow-up period. The majority of participants (80%) expressed satisfaction with the procedure.

Conclusion: The USG PENG block demonstrated significant improvement in pain without major complications after 4 weeks of follow-up in patients with chronic hip pain. More studies need to be conducted to prove its long term efficacy. are warranted to define optimal dosing and evaluate long-term outcomes beyond 24 hours.

ORAL PRESENTATIONS ABSTRACTS

OP8

IMPACT OF CHRONIC PAIN ON THE DAILY FUNCTIONING OF PARAPLEGIC INDIVIDUALS AFTER SPINAL CORD INJURY: A STUDY IN THE GREEK POPULATION

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Introduction: Spinal cord injury (SCI) affects an estimated 20.6 million people worldwide. Internationally, high prevalence of chronic pain in persons with SCI has been noted with many categories diagnosed (neuropathic, nociceptive, visceral etc.). The goal of this study is to record paraplegic people residing in Greece, regarding the presence of chronic pain, its characteristics, and its interference with aspects of daily life.

Methods: This study included 52 paraplegic people who filled our eligibility criteria. They were asked to fill in a questionnaire that included questions about demographics, information about their SCI, the DN4 questionnaire to screen for neuropathic pain, and the Brief Pain Inventory-Short form questionnaire to evaluate how the pain affects their daily activities.

Results: Out of the total participant number (N=52), 28 people (53,8%) had the criteria of chronic pain related to their SCI. The intensity of their pain was evaluated with the NRS pain scale as moderate (4,175/10). The therapeutic intervention they followed to treat their pain relieved their pain on an average of 66%. In the assessment of daily activities with the BPI, the areas more affected by chronic pain were sleep and general activity, and the least affected were the relation with other people and normal work. Out of the 28 people with pain, the majority of the participants were reported to have neuropathic or musculoskeletal pain.

Conclusion: In agreement with existing literature from other countries, this study notes increased prevalence of chronic pain in people with SCI who reside in Greece. This pain affects their daily activities, when measured with the BPI. The results of this study aim to add to the existing worldwide research regarding chronic pain in people living with SCI and to highlight this matter to medical professionals in order to effectively target this matter.

ORAL PRESENTATIONS ABSTRACTS

OP9

THE USE OF NON INVASIVE REPEATITIVE TRANSCRANIAL MAGNETIC STIMULATION (rTMS) IN THE MANAGEMENT OF NEUROPATHIC PAIN

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Objectives: Repetitive Transcranial Magnetic Stimulation (rTMS) is a non-invasive neuro-modulation technique primarily used in drug-resistant depression. Since its FDA approval for chronic pain management in 2013, its use has expanded, especially in conditions such as fibromyalgia and neuropathic pain.

Methods: We applied a high-frequency (20 Hz) rTMS protocol in nine patients (7 males, 2 females; aged 21–74) with chronic neuropathic pain syndromes, including post-stroke pain, trigeminal neuralgia, ulnar nerve neuropathy, and chronic spinal pain. All patients underwent psychiatric evaluation before treatment. The primary stimulation targets were the Primary Motor Cortex (M1) and the Dorsolateral Prefrontal Cortex (DLPFC). Patients received 13 to 29 sessions. Two patients discontinued therapy before completing 10 sessions, which we considered the minimum threshold for evaluating treatment response.

Results: Seven patients completed the treatment cycle, showing a 30% to 70% reduction in pain based on Visual Analogue Scale (VAS) scores, along with improvements in quality of life. No adverse effects were reported. Notably, five out of seven patients expressed willingness to repeat the treatment in the future.

Conclusions: rTMS appears to be a safe, well-tolerated, and promising adjunct therapy for chronic neuropathic pain. Its non-invasive nature, in combination with conventional therapies such as medication and physiotherapy, is appreciated by patients. Despite the small sample size, our data suggest significant pain relief in over 50% of participants. Further randomized controlled trials are necessary to optimize stimulation parameters and confirm efficacy across larger populations.

ORAL PRESENTATIONS ABSTRACTS

OP10

PAIN MANAGEMENT OF A CHILD SUFFERING FROM AUTOSOMAL-DOMINANT POLYCYSTIC KIDNEY DISEASE (ADPKD): A MULTIDISCIPLINARY APPROACH

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Background: Pain is a common complaint in patients with autosomal-dominant polycystic kidney disease (ADPKD), afflicting about 60% of patients with an established diagnosis and a systematic approach is needed to differentiate the etiology of the pain and define an approach to management. Behavioural modification approaches can help patients adapt to chronic pain to not interfere with their lifestyle. ADPKD patients may suffer complications such as infected cysts, cyst rupture/haemorrhage, and nephrolithiasis that often cause crippling acute renal pain.

Methods: On March 2025 after reference of pediatric nephrologist a female patient 12 years old, BMI>25 with ADPKD came to our clinic with persistent renal pain resistant to paracetamol and ibuprofen. Pain had begun a year ago after an episode of glomerulonephritis. During that time, she gained 20 kilos and began propranolol. MRI scans and ultrasound showed no association with renal pain and after clinical examination we concluded that it was of musculoskeletal origin. Her father had died at a young age due to ADPKD. During the consultation, she was shy, it was noted that she suffered social isolation at school, and we referred to the psychiatrist of the Hospital for consultation. We recommended physio, exercise, diet, acupuncture and patch lidocaine.

Results: After the completion of 12 acupuncture sessions, gradually pain decreased, and she returned to her daily activities and began physio. She used patch lidocaine only for the first two weeks. The psychiatrist also prescribed duloxetine and gave her consultations to control her social phobia.

Conclusion: Pain in patients with polycystic kidney disease can be challenging to manage and clinical examination should be thorough. Patients should be dealt with in a multidisciplinary approach to improve the quality of life.

¹ Tellman, Matthew W et al. "Management of pain in autosomal dominant polycystic kidney disease and anatomy of renal innervation." *The Journal of urology* vol. 193,5 (2015): 1470-8. doi:10.1016/j.juro.2014.10.124

² Zahid H. Bajwa et al. "Pain management in polycystic kidney disease", *Kidney International*, Vol. 60 (2001), pp. 1631–1644

ORAL PRESENTATIONS ABSTRACTS

ORAL PRESENTATIONS II

OP11

PHYSICIANS' BELIEFS AND PRACTICES AROUND OPIOID USE

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Opioids have accompanied human history since the first aging civilizations. Over the centuries and as we approached the industrial age their use spread and their clinical application was widespread. This took on the dimensions of an opioid crisis from the 1990s with use going beyond clinical limits but even within them side effects are beginning to be systematically recorded.

In this crisis, the role of physicians is crucial. How exactly they will determine the outcome of an issue that is interwoven throughout time and has taken on such a dimension, depends on their beliefs about opioids and ultimately their practice regarding their use. Beliefs and practices that can overcome dead ends of the past, but from which they can create additional problems and barriers in such a complex issue where the modern medical community is called upon to solve.

Education, guidelines, social biases, knowledge and university studies are the main pillars that compose the beliefs of physicians around opioids and lead to their respective practice in areas such as chronic cancer and non-cancer pain, neuropathic pain, but also postoperative. First line for a wide range of issues continue to be the primary health service centers that need special attention.

Opioid phobia has replaced abuse, and guidelines have replaced empirical knowledge and abuse. The collection of data worldwide shows us that North America, led by the United States, is giving the pulse for the new era of opioid use, far from the distortions of the past, which is why studies from that region have played a primary role in drawing conclusions. The solution to such a complex issue needs to be multi-layered, grasping the thread of all the distortions that lead to misuse or non-use of opioids and giving perspective through coordinated efforts that start from the official institutions of a country and end up at the home of every citizen who needs these drugs.

ORAL PRESENTATIONS ABSTRACTS

OP12

PREDICTING OPIOID RESPONSE IN ONCOLOGY PATIENTS WITH CHRONIC PAIN USING MACHINE LEARNING AND PHARMACOGENOMIC DATA

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Objectives: Opioids are commonly prescribed for chronic pain management in oncology patients. This research aims to develop a machine learning model for predicting individual responses to opioids, using a combination of genetic and clinical factors.

Methods: The proposed protocol involves the development of a high-dimensional machine learning model to predict responses to tramadol and codeine in oncology patients. Genetic data will be integrated from genes involved in opioid metabolism (e.g. OPRM1, CYP2D6), drug transporters (e.g. ABCB1), and additional pharmacogenomic markers, by using gene panels. Clinical variables such as age, gender, BMI, smoking status and comorbidities will also be embodied in the data for analyze. Gene expression profiles will be analyzed for phase I (CYP450) and phase II enzymes that contribute to opioid biotransformation, while clinical factors will be incorporated to refine predictions.

Results: Data collection and analysis are underway. As this study is in its initial stages, preliminary results are not yet available. The focus will be on presenting the study design, methodology and the anticipated approach for integrating data into the machine learning model. The finalized model is expected to provide robust predictions, leading to more tailored pain management strategies.

Conclusions: The protocol introduces an innovative approach to opioid therapy in chronic cancer pain management by integrating genetic and clinical data through machine learning. The study's design, aims to optimize pain relief, minimize opioid-related side effects and support a more personalized approach to patient care. Ongoing validation and refinement will prepare the model for future clinical application, ultimately enhancing the quality of life for oncology patients.

ORAL PRESENTATIONS ABSTRACTS

OP13

PALLIATIVE CARE AND THE QUALITY OF LIFE OF CANCER PATIENTS

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Background: Cancer remains a major public health issue worldwide. According to the World Health Organization (WHO), it is estimated that each year, 56.8 million people — including 25.7 million in the last year of life — are in need of palliative care.

Purpose: The purpose of the present study was to investigate the role of palliative care in improving the quality of life (QoL) of cancer patients.

Methods: A literature review was conducted in the electronic databases Google Scholar and PubMed for scientific articles, published in Greek and English over the last five years (2020–2025), focusing on the relationship between palliative care and the quality of life (QoL).

Results: The studies showed a significant improvement in the quality of life (QoL) of patients who received palliative care. Patients experienced enhanced physical functioning, symptom reduction, and increased psychological resilience and emotional well-being. Palliative care interventions were associated with reduced levels of anxiety and stress, as well as a better understanding and acceptance of the disease trajectory by the patients. At the same time, caregivers demonstrated improved mental health with the care provided. Finally, palliative care was found to reduce the likelihood of hospital admissions, leading to decreased healthcare costs.

Conclusion: Despite extensive studies on palliative care, the investigation of QoL outcomes among patients receiving such care remains insufficiently researched. This may be due to the limited integration of palliative care services into health systems and the shortage of specialized healthcare professionals. Supporting palliative care through funding, training of healthcare professionals, as well as raising public awareness is fundamental to delivering high-quality and holistic care to oncology patients.

ORAL PRESENTATIONS ABSTRACTS

OP14

PALLIATIVE CARE NEEDS IN ADOLESCENTS AND YOUNG ADULT PATIENTS WITH CANCER

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Background: Evidence data indicated that the caring needs of adolescents and young adults (AYAs) 16-24 years old with cancer, are different than older adults and geriatric patients. Among these needs, palliative care (PC) needs seem to be fundamental for improved outcomes, better quality of life (QoL) and greater satisfaction from the provided care.

Objectives: To assess the PC needs of AYAs with cancer.

Methods: A cross-sectional study in a convenience sample of cancer patients that were under cancer therapy in a public hospital during the study period (2021-2023). The "Evaluating Supportive Care for Children with Cancer" scale was used to assess their PC needs.

Results: The study participated 150 AYAs (43.16% men & 56.83% women) reported low knowledge (43%, $p=0.001$), limited experience (28%, $p=0.001$) and positive attitude (33.3%, $p=0.001$) towards PC. One in two stated that PC should be implemented in all stages of the cancer therapy and not only in the end of life stage or only when the management of pain or other symptoms is difficult ($p=0.002$). The participants stated that their QoL is somewhat (36%) or much better (49.3%) at the time of the interview and that their health in the next year will be somewhat or much better (38.6% & 11.3%, respectively) ($p=0.001$). The vast majority of the AYAs strongly believe that they have a high chance of cure (70.6%, $p=0.006$) as well as their family (74%) and they often discuss it with their family (60%). The belief that they will manage to cure, has a great impact on their treatment decisions (91.3%, $p=0.001$) followed by the ability to participate/enjoy daily activities (74.6%). Other important determinants were as well the total treatment time from diagnosis (48%, $p=0.007$), the occurrence of side effects (46%, $p=0.013$) and the total duration of hospitalization (46%). Concerning the pain management, almost one in three participants reported high or moderate pain (31.3%) with stress, anxiety and depression related to the pain intensity ($p=0.028$). The symptom of pain was also associated ($p=0.001$) with loss of appetite (53.3%).

Conclusions: AYAs stated limited experience with PC implementation in practice reflecting the absence of such services in our country. In addition, AYAs reported clearly the need of such services and stressed their role in pain management and the quality of the provided care.

ORAL PRESENTATIONS ABSTRACTS

OP15

TITRATION OF INHALED MEDICAL CANNABIS 9% CBD/ 13% THC STRAIN IN ONCOLOGICAL PATIENTS. FIRST EXPERIENCE IN GREECE

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Introduction: Cancer pain is still a challenge for most oncological patients. Inhaled medical cannabis offers an advantage due to its rapid onset of action.
Materials and Method: Aim of this study is to find which titration protocol of inhaled medical cannabis is better for chronic cancer pain patients naïve on cannabis. We evaluated the effect of the drug on sleep, stress and pain. We also appraise the difficulty of the usage if the device as this was something new to patients.
21 patients were enrolled for 12 weeks.
Mean age was 57 years old \pm 5 years. 9 patients were males, and 12 patients were females. All patients were chronic cancer pain patients on analgesics such as paracetamol and weak opioids (tramadol and tapentadol). Two patients were also on fentanyl patch 25 μ /h. All patients had a VAS pain score more than 5 out of 10.

Week/ Time Day	Morning 06.00	Mid-day 18.00	Evening 18.00	Nighttime 22.00-24.00	Week/ Time Day	Morning 06.00	Mid-day 12.00	Evening 18.00	Nighttime 22.00-24.00
Week 1/ 1-3d	-	-	-	50	Week 1/ 1-3d	-	-	-	150
Week 1/ 4-7d	50	-	-	50	Week 1/ 4-7d	50	-	-	150
Week 2/ 1-3d	50	-	50	50	Week 2/ 1-3d	100	-	-	150
Week 2/ 4-7d	50	50	50	50	Week 2/ 4-7d	150	-	-	150
Week 3/ 1-3d	50	50	50	100	Week 3/ 1-3d	150	50	-	150
Week 3/ 4-7d	100	50	50	100	Week 3/ 4-7d	150	100	-	150
Week 4/ 1-3d	100	50	100	100	Week 4/ 1-3d	150	150	-	150
Week 4/ 4-7d	100	100	100	100	Week 4/ 4-7d	150	150	50	150
Week 5/ 1-3d	100	100	100	150	Week 5/ 1-3d	150	150	100	150
Week 5/ 4-7d	150	100	100	150	Week 5/ 4-7d	150	150	150	150
Week 6/ 1-3d	150	100	150	150	Week 6/ 1-3d	150	150	100	150
Week 6/ 4-7d	150	150	150	150	Week 6/ 4-7d	150	150	150	150

Four questionnaires were used for: VAS score, Stress score, Insomnia/ sleep (ISI) and Device satisfaction.
Results: Twenty patients completed the study.
All 20 patients found the device very friendly and easy to use.
All patients presented with reduction in pain by 2 VAS score units. Patients on the aggressive group reached this on week 10 compared with patients on the conservative group who reached reduction in pain in week 9.
All patients described improvement of sleep with first group to reach a better night sleep being the aggressive group. By week 6, all patients had same sleep improvement. Patients reached dose mg to 600mg per day.
Conclusion: The management of pain with medical cannabis can be a valuable approach for clinicians, especially when other therapies are insufficient. Careful titration is essential.
References: Arun Bhaskar, Alan Bell, Michael Boivin, et al. Consensus recommendations on dosing and administration of medical cannabis to treat chronic pain: results of a modified Delphi process. *Journal of Cannabis Research*

ORAL PRESENTATIONS ABSTRACTS

OP16

PARENTAL AND CHILDREN'S SATISFACTION FROM PAIN MANAGEMENT IN ACUTE CARE SETTINGS IN TWO PAEDIATRIC PUBLIC HOSPITALS IN GREECE

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Background: The views of parents and children regarding the quality of the provided care in the emergency department are greatly influenced by their experiences, especially regarding symptoms' management, among which pain management stands as a core determinant. Aim of this study was to evaluate parental and children's satisfaction from pain management in acute care settings in two paediatric public hospitals in Greece

Methods: A prospective study was conducted with the participation of parents and children who visited the emergency departments of two public pediatric hospitals during the study period. Pain levels were assessed with an appropriate scale, and parents and children were asked to evaluate the implemented pain management and describe their experience and views regarding painful interventions during their stay in the emergency department. The study was approved by the ethical committees of the hospitals. Analysis was performed with SPSS v.29.

Results: The study included 552 children (Group A: 333 (189 boys, 144 girls) aged 5-8 years ($6,52 \pm 0,73$ years) and Group B: 219 (115 boys, 104 girls) aged 9-16 ($12,32 \pm 2,05$ years) and 989 parents (263 fathers (26,6%), 726 mothers (73,4%)). A considerable proportion of children reported moderate to severe pain leading to hospital visits (Group A: 41.9%; Group B: 31.1%) and during ED admission (Group A: 23.4%; Group B: 27.4%). Pain due to interventions was also notable (Group A: 19.8%). Despite this, the majority of children in both groups reported being satisfied or very satisfied with the care received (Group A: 59.9%; Group B: 63%). Among the 989 parents (mean age 42.3 ± 6.3 years), most reported no (43.9%) or minimal (13.3%) pain prior to ED arrival, and only a small proportion reported significant pain upon arrival (4.3%) or due to ED interventions (15.2%). Overall parental satisfaction was high, with only 15.7% reporting low or very low satisfaction. Notably, parents whose children experienced pain during the ED visit were significantly less satisfied with the care provided ($p=0.001$). However, satisfaction levels did not significantly differ based on the child's age ($p=0.264$) or gender ($p=0.207$), or the parent's gender ($p=0.996$).

Conclusion: These findings underscore the importance of effective pain management in pediatric emergency settings, not only for clinical outcomes but also for enhancing patient and parental satisfaction with care.

ORAL PRESENTATIONS ABSTRACTS

OP17

PRELIMINARY RESULTS OF THE GREEK CHRONIC PAIN & PALLIATIVE CARE REGISTRY

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Background: Chronic pain and palliative care represent growing clinical and public health challenges. A registry was developed under the coordination of the Hellenic Society of Pain Management and Palliative Care (PARH.SY.A.), aiming to document patient characteristics, pain types, interventions, and outcomes across specialized Pain Clinics in Greece¹. Here we present preliminary results from the first phase of registry implementation (May–June 2025).

Methods: This is a prospective, observational multicenter study, including adult patients with chronic pain care. Data are collected at baseline and all subsequent visits using a standardized electronic platform and include demographics, ICD-11 diagnosis, comorbidities, pain characteristics, and prior treatments. Pain assessment tools include the Numeric Rating Scale (NRS), DN4, PainDETECT, and the Short-Form McGill Pain Questionnaire. Patients also complete the Pain Catastrophizing Scale and EQ-5D-5L, while their caregivers complete the Zarit Burden Interview. Descriptive analyses were performed using R.

Results: Eighty-three patients completed their first visit across 7 Pain Centers in Athens, Crete, and Thessaloniki. Mean age was 68.1 years (SD: 13.5); 62% were female. Most had comorbidities (77%), most commonly hypertension (48%). Prior analgesic use was reported in 81%, despite 95% lacking a formal chronic pain diagnosis. Mean NRS score was 7.5 (SD: 1.8) and mean McGill score was 9.9 (SD:8.6). Common diagnoses included chronic musculoskeletal (52%) and chronic primary pain (17%). New analgesics were prescribed to 44% (57% received pregabalin), while 62% were referred for interventions, including diagnostic/therapeutic nerve blocks (41%). Mean Pain Catastrophizing score was 20.9 (SD:14.6); EQ-5D-5L utility 0.48 (SD:0.3); caregiver burden score 41.3 (SD:29.8).

Conclusions: These findings highlight the feasibility and clinical utility of a national pain registry. Ongoing data collection will inform service planning and quality improvement in pain and palliative care.

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ORAL PRESENTATIONS ABSTRACTS

OP18

WHEN TOO MUCH IS NOT ENOUGH: ULTRA HIGH DOSE REMIFENTANYL REQUIREMENT IN HEROIN DEPENDED PATIENT UNDERGOING LAPAROSCOPIC HERNIA REPAIR

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Background: Managing anesthesia and postoperative analgesia in patients with a history of chronic heroin use is a well-recognized challenge due to profound opioid tolerance. These patients may require opioid doses exceeding standard recommendations, posing unique perioperative risks and management dilemmas [1].

Case Presentation: We present the case of a 44-year-old male with a longstanding history of daily heroin use who was admitted for elective laparoscopic hernia repair. Standard perioperative doses of remifentanyl for analgesia (0.1–1 µg/kg/min) proved grossly inadequate. The remifentanyl infusion was incrementally increased, reaching a maximum of 6 µg/kg/min to maintain satisfactory anesthesia-analgesia, with stable intraoperative hemodynamics. At the conclusion of the procedure, the patient was administered 10 mg intravenous morphine for postoperative pain relief. Despite this, he continued to experience severe pain, vocalizing significant discomfort and requesting additional analgesia. Subsequently, 250 µg intravenous fentanyl was administered twice, within a few minutes, before the patient finally reported effective pain relief. He was transferred to the ward without any episodes of respiratory depression, hemodynamic instability, or other complications.

Conclusion: This case highlights the extreme opioid tolerance encountered in patients with chronic heroin dependence, both during anesthesia and in the immediate postoperative period [2]. The need for ultra-high intraoperative opioid doses, along with substantial postoperative analgesic requirements, underscores the importance of careful perioperative planning, vigilant monitoring, and individualized pain management strategies in this challenging population [3]. In this case, the drive of addiction appeared stronger than the effect of even high doses of pain medication, emphasizing the complexity of treating pain in opioid-dependent individuals. Awareness of the potential for rapid escalation in opioid requirements is essential for safe and effective care, while avoiding opioid-induced adverse effects. Further research and guidelines are needed to optimize management in such complex cases.

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ORAL PRESENTATIONS ABSTRACTS

OP19

ANESTHETIC AND ANALGESIC DRUG MANAGEMENT IN ONCOLOGY PATIENTS: SPECIAL CONSIDERATIONS

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Background: Oncology patients undergoing surgery require carefully tailored anesthetic and analgesic approaches due to the complex interplay between drugs, immune response, tumor biology, and perioperative stress. Anesthetic agents can modulate inflammation and cancer progression, while pain control strategies must balance efficacy with the risk of opioid-related adverse effects. This presentation reviews recent literature and clinical data on the immunomodulatory properties of anesthetic and analgesic agents in cancer surgery. It also analyses current OFA (opioid-free analgesia) techniques, focusing on their application in perioperative pain management for oncology patients.

Methods: A comprehensive narrative review was conducted using PubMed, Embase, and Google Scholar (2019–2024), with keywords including “oncologic anesthesia,” “intravenous anesthetics,” “volatile anesthetics,” “cancer pain,” and “opioid-free analgesia.” Articles in English and Greek were included, with an emphasis on clinical applications and immunologic impact.

Results: Intravenous anesthetics such as propofol demonstrate anti-inflammatory effects and potential tumor-suppressive properties. Inhalational agents like sevoflurane have been associated with pro-inflammatory and pro-metastatic signaling. Regarding analgesia, OFA protocols incorporating ketamine, dexmedetomidine, lidocaine, and NSAIDs have shown promise in reducing opioid use, maintaining immune stability, and enhancing functional recovery. The integration of anesthetic and analgesic planning is therefore crucial in oncologic settings, influencing not only symptom control but potentially long-term outcomes.

Conclusion: Effective anesthetic and analgesic drug management in oncology patients should involve a personalized, multimodal approach. The combined use of immune-supportive anesthetic agents and opioid-sparing analgesic techniques can minimize perioperative risks and optimize patient recovery, contributing to better quality of care and potentially improved survival in cancer patients.

ORAL PRESENTATIONS ABSTRACTS

OP20

PALLIATIVE CARE IN THE EMERGENCY DEPARTMENT: THE IMPORTANCE OF EDUCATING AND TRAINING THE WORKFORCE**Foradi E.**¹, Siafaka I.², Koutsoukou R.³¹General and Oncological Hospital of Kifisia, Athens, Greece; ²Medical School, National and Kapodistrian University of Athens, Athens, Greece;³General Hospital G.N.A Gennimatas, Athens, Greece

Background: In the past decade, there has been growing recognition on the importance of incorporating palliative care provision in the Emergency Department. The imperative to educate the Emergency Department workforce in primary palliative care has only recently been established.

Despite the progress, substantial work has yet to be done in order to be provided high-quality palliative care in the Emergency Department.

Methods: A literature review was conducted to assess current practices in palliative care integration within the ED. Two forms of palliative care were identified: primary and specialty. The role of primary palliative care is to provide an interdisciplinary, medical, psychological and spiritual/existential approach not only to the patients with serious illnesses but their families too, aimed at relieving suffering and improving quality of life.

The plethora of scientific evidence attests that early identification of the critical ill patients who need primary palliative care in the Emergency Department, will improve the End-of-Life care and reduce medical utilisation and cost. Education and clinical training of ED physicians are essential, and additional research is needed to develop practice guidelines and innovative care models.

Results: Early integration of palliative care at the time of Emergency Department visits is important for improving the quality of care for critically ill patients and their families.

The emergency physicians are important to develop the communication and clinical skills required to meet these patients' complex needs.

There is an urgent need for structured training programs and further research to support evidence-based guidelines.

Conclusions: Research over the past decade strongly supports the early integration of primary palliative care in the Emergency Department will reduce "suffering", achieve greater control over the dying process, and improve the overall quality of End-of-Life care. Education and training of the ED workforce are critical components of this effort.

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OP21

MEDIAL BRANCH BLOCKS AND CONTINUOUS RADIOFREQUENCY IN THE TREATMENT OF LOWER BACK PAIN

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Introduction: Lower back pain is very common. Most common causes include arthritis, structural problems and disk injuries.

A medial branch nerve block is a minimally invasive injection procedure that involves injecting a small amount of a local anesthetic, with or without a corticosteroid, near the medial branch nerves – the small nerves near the facet joints of the spine that carry pain signals from the joints to the brain, Radiofrequency ablation (RFA), disrupts pain signals of the spinal nerves, is a safe, low cost treatment option for chronic low back pain.

Methods and Materials: In 18 months we treated 245 patients with lower back pain. The MRI of the lumbar region showed different pathologies, including degeneration of the joints, muscle atrophy, Listhesis etc. From a surgical point of view there was either no clear surgical indication or the patient didn't want operation. All of the patients had previously had multiple medication's and sessions of physiotherapy.

According to our treatment protocol in these patients we first preform a diagnostic block of the related medial branch branches, if positive we repeat the blocks with a combination of local anaesthetic and corticosteroids. If the result doesn't last long enough a Radiofrequency treatment is suggested.

Results: Out of the 245 patients, all of them were initially treated with MBBs and 82 were treated with a CRF treatment. Pain Detect questioners were used to evaluate the results. All patients that were treated with a MBB combined with physiotherapy and assistent medication, had at least 6 to 12 weeks of sufficient pain relief.

From the 245 patients, 145 were satisfied with the combined treatment, 82 still had relevant symptoms and were treated with CRF and 18 Patients although still not satisfied, didn't want any further treatments.

Out of the 82 patients, 76 had a sufficient (>50%) pain relief in the 3 month follow up, 56 still had a sufficient pain relief in the 6 month follow up. Out of 12 patients that had a 12 month follow up, 5 were still satisfied with the result and 7 had relevant pain but didn't wish a treatment at that time.

Discussion: CRF is an effective pain treatment. Compared to more costly and ivasive treatments like SCS and Multifidus Stimulation, it should be concidered as a first step treatment.

Conclusion: CRF is a safe, minimal invasive and stable treatment that, combined with adapted physiotherapy and adjusted medication can offer a long lasting pain relief.

1. A holistic approach of different pain treatments should always be considered, preferably from minimal to more invasive treatment.

2. Especially in situations where cost of a treatment play a decisive role, Medial Branch Blocks and RF treatments are optimal solutions to help patients.

3. Radiofrequency treatments are still the stepping stone to any Neuromodulation solution, since nowa-days we tend to treat patients for more than 15 years.

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OP22

THE COMBINATION OF CONTINUOUS AND PULSED RADIOFREQUENCY IN THE TREATMENT OF CERVICOGENIC HEADACHE

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Introduction: Cervicogenic headache is caused by a cervical spine issue. It's a type of secondary headache. Ganglion Sphenopalatinum and Occipital Nerve blocks are known techniques and have been used to treat forms of persistent headaches such as cervical headache, cluster headache, migraine and occipital neuralgia. Radiofrequency treatments have been known to disrupt pain signals in the second and third neuron.

Methods and materials: In 12 months we treated 22 patients with cervicogenic headache. In all patients a cervical MRI which showed various alterations of the cervical spine without a clear underlying reason for the headache that could be surgically improved. All have had various medications and physical therapy which did not help. In our center we first offer therapeutic blocks and if the blocks don't last long enough or don't reduce the pain enough we suggest radiofrequency treatments.

Results: All 22 patients initially underwent a series of blocks on both the SPG and the Occipital nerves which gave us more that 70% control the symptoms. Three months after the blocks 10 out of the 22 patients were happy with the result of the blocks. The 12 patients which did not experience sufficient pain relief or the pain relief didn't last long enough, a radio frequency treatment was suggested.

On these 12 patients we performed a combination of CRF treatment of the occipital nerves and a PRF of the SPG. Full 12 patients experienced sufficient (over 50%) immediate pain relief. Three and six weeks after the treatment all 12 patients were still satisfied (over 50% control of the symptoms) with the result of the combined treatment. The related medication was reduced by 30%.

3 months later 10/ 12 patients were still very satisfied with the treatment. The other 2 patients had an episode of severe headache, but were still better than before the treatment.

Six months later 7/12 patients were satisfied with the course of the treatment. The other five experienced a relapse of the symptoms, but with a combination an adjustment of the medication and physiotherapy, they were able to control the symptoms.

12 months later all 12 patients have experienced a relapse of their symptoms. In all 12 patients an adjustment of the medication was needed.

Discussion: Continuous and Pulsed Radiofrequency treatments are the stepping stone of neuromodulation and can provide a stable and reliable solution for cervicogenic and other forms of headache. If the conditions require it, other forms of neuromodulation can also be used, such as the permanent stimulation of SPG or the occipital nerve.

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OP23

EARLY STELLATE GANGLION BLOCKADE FOR HERPETIC NEURALGIA OF THE HEAD AND UPPER LIMB: A STRATEGY FOR PAIN CONTROL AND PREVENTION OF POSTHERPETIC NEURALGIA

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Background: Acute herpetic neuralgia (AHN) can be debilitating, with limited treatment options in patients contraindicated for systemic analgesia. Stellate ganglion block (SGB) may provide rapid pain relief and potentially reduce progression to postherpetic neuralgia (PHN).

Methods: Two patients with acute herpetic neuralgia of the head and upper limb were treated early with fluoroscopy-guided stellate ganglion blocks using ropivacaine, adrenaline, and dexamethasone.

Results: The first case involved a 64-year-old female with right upper limb herpetic neuralgia (C5–C7 dermatomes) refractory to gabapentin, acetaminophen, and tramadol. A block was performed using 7 mL of 0.5% ropivacaine with adrenaline (1:200,000) plus 8 mg dexamethasone. After two injections, her pain (NRS 8/10) resolved completely (NRS 0), and she remains PHN-free at eighteen months. The second case involved a 78-year-old male with facial herpes zoster (V1 dermatome) and renal impairment limiting systemic therapy. Despite low-dose pregabalin and tramadol, he had severe pain (NRS 10/10). Two SGBs were performed with 5 mL of 0.5% ropivacaine with adrenaline and 8 mg dexamethasone each. His pain decreased sustainably (NRS 1–2/10), tramadol was discontinued, and pregabalin tapered. Only transient hoarseness was observed. Six months after the block he is pain free and has discontinued pregabalin as well.

Conclusion: These cases suggest that early SGB may offer dual benefits: acute pain relief and prevention of PHN, especially in complex patients with limited medication options. Repeated SGBs may modulate neuroimmune responses and interrupt pain chronification pathways.

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OP24

WHEN EVERYTHING GOES WRONG: CHALLENGES AND PITFALLS IN NEUROMODULATION FOR SEVERE CHRONIC NEUROPATHIC PAIN

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Background: Peripheral nerve stimulation is increasingly used in refractory neuropathic pain conditions. Although considered minimally invasive and safe, complications can occur, leading to significant patient distress and therapeutic dilemmas.

Methods: We report the complex case of a 51-year-old male presenting to our clinic with severe chronic neuropathic pain (VAS 7–8, DN4 9–10) in the lumbar and gluteal region, hyperalgesia, allodynia, and significant psychological distress, including suicidal ideation. His symptoms began four years earlier following a weight-lifting injury, subsequently undergoing multiple evaluations by various specialists and receiving numerous ineffective treatments. Initial diagnoses included piriformis syndrome, treated surgically without success, and subsequently cluneal nerve entrapment, leading to neurectomy (S1–S5 and coccygeal nerves), performed within the context of one-day surgery. Upon our assessment, he was receiving duloxetine and oxycodone-paracetamol combination, having previously discontinued gabapentin and pregabalin due to adverse effects, including sexual dysfunction. A comprehensive multimodal approach was initiated, involving cautious reintroduction of pregabalin, cognitive-behavioral therapy (CBT), immediate psychiatric referral, detailed discussion of treatment options, and a trial of peripheral nerve stimulation.

Results: The patient initially showed improvement (40% pain reduction) during the stimulation trial. Permanent implantation, however, was complicated by severe local infection and intolerable pain at the electrode insertion site, necessitating urgent removal under sedation and prolonged antibiotic therapy. Despite resolution of infection, the patient's original neuropathic symptoms recurred, presenting ongoing therapeutic challenges.

Conclusion: This case highlights critical considerations in patient selection, management of patient expectations, and the risks associated with neuromodulation procedures. Comprehensive multidisciplinary support and cautious decision-making remain essential, particularly in patients with previous therapeutic failures and psychological distress.

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OP25

THE USE OF HIGH VOLUME EPIDURAL AGAINST LUMBALGIA SCIATICA: A 20-YEAR EXPERIENCE AT THE GENERAL HOSPITAL OF RHODES, GREECE

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Background: High-volume lumbar epidural (HVE) injections represent an interventional strategy for managing sciatica by delivering medication in a larger volume to the epidural space. This approach may enhance drug distribution and reduce inflammation. This study presents a 20-year retrospective analysis conducted at the General Hospital of Rhodes, Greece.

Methods: Data were collected from 185 patients (82 males and 103 females) who received HVE injections. Each patient was administered a 50 mL solution comprising dexamethasone, betamethasone, fentanyl, and ropivacaine. Injections were performed in the lumbar region using the loss-of-resistance-to-air technique.

Results: Among the 185 patients, 24 (14 females) received an additional injection, most of whom underwent the second procedure at least one year after the initial treatment. Nine patients (8 females) reported moderate to poor outcomes. Adverse events included three cases with symptoms suggestive of Horner's syndrome. One patient experienced loss of consciousness and a high-grade motor block lasting approximately three hours, which subsequently resolved.

Conclusion: High-volume lumbar epidural injections appear to be a viable long-term intervention for managing sciatica, offering improved medication spread and potential symptom relief. Over a 20-year period, the majority of patients experienced favourable outcomes, with relatively few requiring repeat injections. While most adverse effects were mild and self-limiting, isolated cases of more significant reactions, such as transient motor block and Horner's-like symptoms, highlight the importance of careful patient selection and monitoring. These findings support the continued use of HVE in clinical practice, with attention to safety and individualized follow-up.

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OP26

THE INTRARTICULAR COMBINATION OF FENTANYL, DEXAMETHASONE, CLONIDINE, AND ROPIVACAINE FOR HIP OSTEOARTHRITIS: A CASE REPORT**Tsoleridis T.**¹, Pittas A.²¹*Department of Anesthesiology, General Hospital of Rhodes, Greece;*²*Department of Orthopedics, General Hospital of Rhodes, Greece*

Background: This case study involves an 84-year-old patient suffering from pain due to hip osteoarthritis. Conventional pharmacological and non-pharmacological treatments yielded only moderate relief, significantly impairing the patient's daily functioning. Due to multiple chronic comorbidities, the patient was not a candidate for surgical intervention and was deemed ineligible for intra-articular stem cell injections due to advanced age.

Methods: A 6 mL solution containing fentanyl, dexamethasone, clonidine, and ropivacaine was injected intra-articularly into the hip joint. The procedure was performed under strict aseptic conditions using a 22-gauge needle, with radiological confirmation of accurate needle placement. Written informed consent was obtained prior to the intervention.

Results: The patient experienced immediate pain relief and continues to report sustained, adequate pain control one year post-injection. Daily activities are no longer significantly hindered by pain.

Conclusion: This multifactorial intra-articular injection approach appears to provide safe and effective pain relief in a patient with severe hip osteoarthritis who is ineligible for surgery or regenerative therapies. These promising results support further investigation, and a randomized controlled trial is being planned to evaluate the efficacy of this treatment on a larger scale.

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OP27

IS MIXING ROPIVACAINE AND DEXAMETHASONE HAZARDOUS IN EPIDURAL INJECTIONS FOR LUMBALGIA SCIATICA? DATA FROM THE GENERAL HOSPITAL OF RHODES FOR THE DECADE 2014-2024

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Background: Recent studies have shown that the combination of ropivacaine and dexamethasone for epidural injections is generally discouraged due to the potential risk of crystallization and embolization, which could result in serious neurological complications. This report presents data from the General Hospital of Rhodes, Greece, regarding the use of this drug combination for epidural injections over the decade from 2014 to 2024.

Methods: The collected data include a total of 275 patients (171 females) who underwent epidural injections for lumbalgia sciatica. Three patients had previously undergone spinal fusion surgery prior to receiving the epidural treatment. The injected solution consisted of a mixture of fentanyl, clonidine, dexamethasone, ropivacaine, and normal saline, with a total volume of 20 mL.

Results: Of the 275 patients, 208 reported excellent results at follow-up, with symptom relief typically occurring within 1 to 10 days. The remaining 67 patients (43 females) required repeat sessions. Among them, five patients eventually underwent spinal fusion surgery due to persistent sciatica symptoms. Notably, no adverse effects related to the drug combination were observed, and no macroscopic precipitate formation was noted during the preparation of the mixture.

Conclusion: The combination of ropivacaine and dexamethasone for epidural injections appears to be a safe and effective approach. While recent reports have raised concerns about the potential for crystalline formation when these drugs are combined, our clinical experience provides no clinical or macroscopic evidence to discourage their epidural administration.

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OP28

PULSED RADIOFREQUENCY OF PUDENDAL NERVE FOR PELVIC PAIN. A CASE SERIES WITH LONG-TERM FOLLOW-UP

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Objectives: Chronic pelvic pain (CPP) is a complex condition with various etiologies, including pudendal neuralgia, interstitial cystitis, piriformis syndrome, and neuropathies involving the ilioinguinal, iliohypogastric, and genitofemoral nerves. Despite differences in underlying causes, the most common clinical presentation includes urinary urgency and severe discomfort localized to the perineal and suprapubic regions, often associated with urinary hesitancy and a burning sensation. Treatment options for CPP are diverse and may include pharmacological management, pudendal nerve blocks, decompressive surgery, and neuromodulation techniques. Pulsed radiofrequency (PRF) therapy is a minimally invasive modality with promising results for neuropathic pain syndromes.

Methods: This study presents a case series evaluating the clinical efficacy of fluoroscopic guided PRF treatment of the pudendal nerve(s) in four patients with persistent pelvic and/ or perineal pain who were referred to our pain clinic. Each case was assessed based on pain relief outcomes, functional improvement, and patient satisfaction following intervention.

Results: Four patients with chronic pelvic pain of varying etiologies experienced significant and sustained relief following pulsed radiofrequency (PRF) treatment of the pudendal nerve(s). PRF was administered after short-term relief from diagnostic nerve blocks and enabled medication reduction or discontinuation, with benefits lasting from 6 to over 14 months in most cases.

Conclusions: All four patients achieved significant, long lasting pain relief with PRF of the pudendal nerve, a minimal invasive, safe and easily performed procedure. This technique can be repeated and may offer even longer-term results, especially to patients that decline more invasive options such as sacral neuromodulation. As patient populations are heterogeneous, with a wide range of pain aetiologies, the best predictors of PRF success are diagnostic blocks – performed with either local anaesthetic alone or in combination with cortisone.

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OP29

PULSED RADIOFREQUENCIES FOR PAIN TREATMENT IN SUPRASPINATUS TENDINOPATHY

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Background: Supraspinatus tendinopathy (SSPT) is a common cause of shoulder pain, often associated with overuse of the supraspinatus tendon and acromion impingement syndrome, and is frequently related to frozen shoulder. Pulsed radiofrequency (PRF) therapy has emerged as a non-invasive alternative for managing pain associated with SSPT
Methods: We evaluated 27 patients (18 females [66%], 9 males [34%]; mean age 64.5 years presenting with shoulder pain attributed to supraspinatus tendinopathy. Pain was localized to the right shoulder in 21 patients (77%) and to the left shoulder in 6 patients (23%), with a mean baseline Visual Analogue Scale (VAS) pain score of 7 ± 1 . All patients had a confirmed diagnosis of supraspinatus tendinopathy and had previously undergone various conservative treatments. PRF (~500 kHz) was delivered via transdermal patches in six 45-minute sessions, administered twice weekly. Patches were applied sequentially to lateral (15min), anterior (15min), and posterior (15 min) aspects of the shoulder

Results: All patients reported significant pain relief. Sixteen (16) patients (60%) achieved a post-treatment VAS ≤ 4 , while eleven (11) patients (40%) reported VAS ≤ 2 . Additionally, patients noted substantial improvement in shoulder mobility. Mild, transient side effects such as burning sensation or itching were reported in five patients (19%), with no serious adverse events observed. Eight patients (30%) asked to repeat treatment after 3 months, twelve patients (45%) after 6 months while seven (25%) didn't ask after 12 months

Conclusion: PRF therapy appears to be a safe, well-tolerated, and effective non-invasive option for managing shoulder pain in patients with supraspinatus tendinopathy. Beyond pain reduction, it also facilitates improved mobility and enhances adherence to physiotherapeutic rehabilitation protocols

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OP30

EVALUATION OF MASSETER MUSCLE THICKNESS AFTER GASSERIAN GANGLION RADIOFREQUENCY THERMOCOAGULATION: PRELIMINARY RESULTS**Tanyel Saraçoğlu T.**, Erken B.*Başakşehir Çam and Sakura City Hospital, Istanbul, Turkey*

Background: Radiofrequency thermocoagulation (RFT) of the Gasserian ganglion (GG) is an established treatment for trigeminal neuralgia (TN). Given that the masseter muscle is innervated by the mandibular branch of the trigeminal nerve, there are concerns regarding potential motor involvement, muscle atrophy, or masticatory dysfunction following the procedure. The aim of this study was to evaluate whether GG-RFT causes measurable changes in masseter muscle thickness.

Methods: Nine TN patients (2 with isolated mandibular and 7 with combined mandibular–maxillary involvement) underwent GG-RFT targeting the relevant branches. Ipsilateral masseter thickness was assessed via ultrasound by the same investigator at consistent anatomical levels, in both relaxed and fully contracted states, before the procedure and at 1- and 3-month follow-ups.

Results: At baseline, the mean masseter thickness in the relaxed state was 8.3 ± 0.74 mm; at 1 and 3 months, it was 7.13 ± 0.88 mm and 8.9 ± 0.78 mm, respectively. In the contracted state, the mean thickness was 11.47 ± 1.4 mm at baseline, 8.9 ± 1.06 mm at 1 month, and 11.35 ± 0.92 mm at 3 months. Wilcoxon analysis showed a statistically significant decrease in masseter muscle thickness in both relaxed and contracted states at 1 month compared to baseline ($p = 0.008$ for both), but no significant difference between baseline and 3 months ($p = 0.050$ and $p = 0.513$, respectively). These findings indicate that masseter muscle thickness decreased at the 1-month follow-up but returned to baseline levels by the third month.

Conclusion: Our preliminary data suggest that GG-RFT may lead to a temporary reduction in masseter muscle thickness in the early post-procedural period. However, by the third month, muscle thickness appears to return to pre-procedure levels.

ClinicalTrials.gov ID: NCT06278194

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OP31

HEMODYNAMIC COLLAPSE DUE TO INTRATHECAL CATHETER MISPLACEMENT IN A TOTALLY IMPLANTED PUMP: A CASE REPORT

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A 57-year-old man with metastatic lung cancer and bone metastases in the right sacroiliac region and femur presented to the pain clinic with severe pain (VAS 8–10) and neuropathic symptoms (DN4 = 7). He was intolerant to opioids (urinary retention, vomiting, constipation) and pregabalin (dizziness, disorientation), leading to refusal of systemic analgesics. A totally implanted intrathecal pump was placed. Cerebrospinal fluid (CSF) confirmed initial intrathecal access. While C-arm imaging was used for confirmation of entry, catheter advancement was performed without continuous fluoroscopic guidance. A mixture of morphine and 10% ropivacaine was administered via a 40 ml pump. Analgesia was inadequate, even after dose escalation. Patency was verified by CSF return through the port, but pain persisted.

A test dose of 2 ml ropivacaine 7.5% was administered. Shortly after, the patient developed hypotension (BP 70/40 mmHg), hypoxia (PO₂ 82), respiratory insufficiency, and upper limb motor weakness—indicative of high spinal block. Supportive care stabilized the patient.

Fluoroscopic imaging revealed the catheter tip at the T1 vertebral level. It was repositioned under C-arm guidance to T12, with subsequent adequate pain control and no further complications.

Conclusion: This case highlights a serious complication resulting from inadequate imaging during intrathecal catheter placement. Continuous fluoroscopic guidance—not just initial confirmation—is critical to ensure safe and effective drug delivery. Misplacement to high thoracic levels can cause life-threatening consequences. Strict adherence to imaging protocols is essential in interventional pain management, particularly in palliative care.

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OP32

THE ANALGESIC EFFICACY OF TRANSCUTANEOUS PULSED RADIOFREQUENCY TREATMENT IN CHRONIC PAIN PATIENTS DUE TO DEGENERATIVE OSTEOARTHRITIS OF BIG JOINTS AND OF LUMBAR SPINE: OUR CLINICAL EXPERIENCE

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Objectives: Musculoskeletal diseases are a leading cause of chronic pain, affecting millions of people annually. These conditions significantly impact patients' quality of life and cause substantial psychological, social, and economic distress. The most common include degenerative osteoarthritis, fibromyalgia, rheumatoid arthritis, and osteoporosis. To manage chronic musculoskeletal pain, various pharmaceutical protocols, as well as invasive and non-invasive methods, have been employed. One such method is Transcutaneous Pulsed Radiofrequency (TCPRF) Treatment. TCPRF is a pain-free, non-invasive method that uses two self-adhesive quadrant patch electrodes connected to a pulsed radiofrequency current generator, applied to the affected joint in an opposing configuration. The purpose of this study was to evaluate the analgesic efficacy of this non-invasive method (TCPRF) in the treatment of chronic musculoskeletal pain of the knee, shoulder and lumbar spine.

Methods: The study included 30 patients attending the Chronic Pain and Palliative Care Clinic of the General District Hospital of Rethymno – Crete, Greece, aged 41 to 87 years (mean age 65 years). Of those, 80% (24 patients) were female and 20% (6 patients) were male. Selection criteria included the failure of pharmaceutical chronic pain management and/or the inability to undergo any surgical intervention, either due to severe medical comorbidities or patients' unwillingness. A total of 90 sessions of transcutaneous pulsed radiofrequency treatment were performed on the 30 patients, with three sessions for each patient, with 10-day intervals between sessions.

Results: Patients' chronic pain evaluation was performed using the WOMAC Index Score (Western Ontario and McMaster Universities Osteoarthritis Index Score) on days 0, 10, and 20 before the first, second and third treatment application respectively. The analgesic efficacy of TCPRF in the management of chronic pain was evaluated and recorded as a percentage, based on WOMAC Score (WOMAC Index Score 100%: worst imaginable pain, WOMAC Index Score 0%: pain-free). Overall, 36.7% of patients suffered from degenerative lumbar spine osteoarthritis or chronic post-operative lumbar spine pain, 43.3% from degenerative knee osteoarthritis, and 20% suffered from chronic glenohumeral (shoulder) pain. The WOMAC Index Scores for all patients before the first treatment session ranged from 52% to 98% (mean 74%), before the second session from 27% to 92% (mean 58%), and before the third one from 21% to 71% (mean 44%). The WOMAC Index Score was also calculated according to the joint involved in the treatment. For patients treated for chronic osteoarthritis knee pain, the mean WOMAC Index scores were 82%, 53% and 40% prior to the first, second and third

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treatment session respectively. For those treated for chronic lumbar spine pain, the mean WOMAC Index scores were 74% before the first session, 60% before the second session, and 54% before the third session. For the patients treated for glenohumeral joint pain, the mean WOMAC Index scores were 68% before the first session, 52% before the second session, and 35% before the third one.

Conclusions: Transcutaneous pulsed radiofrequency treatment may reduce joint pain and can have a positive impact on the management of chronic lumbar spine pain, degenerative knee mechanical pain, and degenerative glenohumeral joint pain. However, its mechanism of action is still not fully elucidated. More observational studies and prospective clinical trials, as well as multicentre studies are needed to establish the benefits of this method, and to create new protocols for following up with patients to obtain reliable results and firm conclusions.

OP33

RADIOFREQUENCY VERSUS STEROID INJECTIONS FOR SPINAL FACET JOINT PAIN

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Radiofrequency (RF) ablation is a common treatment option for spinal facet joint pain (SFJ), often compared to steroid injections (SI). Lumbar facet joint pain is predominantly linked to degenerative osteoarthritis and results from joint degeneration, inflammation and nerve irritation. RF interrupts pain signals by destroying or modulating nerve tissue and SI address the joint inflammation and pain directly.

METHODS: We compared two groups Group RF (n=10) and Group SI (n=10) treating SFJ pain.

Group RF patients were treated using RF ablation of L3-L4 branch primary dorsal rami and L5-S1 lateral sacral branch for 3 min 72°C-75°C, under C-arm guidance. In Group SI patients' 5mL mixture of methylprednisolone 20 mg + 2mL of naropeine 0.25% were injected in the same space under C-arm, too. Pain intensity was assessed by Visual Analogue Scale (VAS) at 3 and 6 months. Standard Mean Difference (SMD) for VAS and Mean Difference (MD) for functional disability were recorded.

RESULTS: The Group SI had a higher functional disability score than Group RF at 3 and 6 months post treatment (MD 18), 21.36 to 16.20, $p<0.0001$ and at 3 months VAS 6.08 to 2.8 (0.9). At 6 months Group SI VAS 7.4 to Group RF 3.6 (SD1.2)

DISCUSSION: This study suggests that RF may offer superior pain relief with longer duration compared to steroid injections for spinal facet. Future studies are needed to address whether innovations of the RF technique can influence duration of pain relief or success rate. The duration of pain relief more than 10-12 months in the RF Group apparently is influenced negatively by nerve regeneration, which takes place between 6 months and one year.

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OP34

INVESTIGATION OF THE EFFECT OF TRANSCUTANEOUS VAGUS NERVE STIMULATION ON FIBROMYALGIA: PRELIMINARY RESULTS OF A DOUBLE BLIND RCT

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General: Transcutaneous vagus nerve stimulation (tVNS) can help relieve pain in a range of clinical conditions. Modification of afferent signal transmission through the nucleus of the solitary tract (NST) has been proposed as the primary mechanism contributing to the reduction of pain intensity after tVNS. Fibromyalgia (FM) is an idiopathic chronic pain syndrome with few effective and safe treatments. The pain and associated symptoms of patients with FM can be improved by stimulation of the vagus nerve through modulation of autonomic and immune system functions. The effect of repeated tVNS sessions on FM have not been thoroughly evaluated in randomized clinical trials.

Methodology: The aim of the study is to evaluate whether percutaneous stimulation of the otic branch of the vagus nerve in patients with fibromyalgia can lead to a reduction in pain intensity and improvement in quality of life. Patients are being offered a 2-week treatment (14 30-minute sessions each) in a randomized double-blind controlled trial. Patients have been divided into 2 groups (Group 1: suggested per os medication + tVNS stimulation, Group 2: suggested per os medication + sham tVNS).

Results:

Measure	Active Group (n=7)	Control Group (n=8)
NRS reduction	2.0 points	2.37 points
WPI improvement	3.4/19 points	0.75/19 points
SS scale improvement	4.1/12 points	0.9/12 points
DASS scale reduction	10.1/63 points	3.9/63 points
BPI Pain Interference improvement	3.9/70 points	3.7/70 points
BPI Pain Severity reduction	1.1/40 points	6.5/40 points
FIRST improvement	1.3/6 points	0.5/6 points

Discussion: This study examines a novel non-invasive and non-pharmacological way to relieve patients with fibromyalgia, where the impact on patients is huge and treatment options are limited. An important limitation of our study is the small number of patients included in the analysis. The preliminary results of this randomized controlled trial suggest that tVNS has potential benefits in reducing pain and improving fibromyalgia symptoms, although the differences between the active and control groups were modest.

ORAL PRESENTATIONS ABSTRACTS

OP35

COMBINATION OF ERECTOR SPINAL PLANE BLOCK (ESPB) AND PARAVERTEBRAL BLOCK (PVB) FOR POSTOPERATIVE ANALGESIA AFTER MAJOR THORACIC SURGERY INVOLVING THORACIC WALL RECONSTRUCTION

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Introduction: Thoracic surgery and more precisely chest wall reconstruction is associated with high incidence of postoperative pain. Acute pain management requires multimodal anaesthesia with the use of truncal peripheral nerve blocks.

Our patient, a 69-year-old patient with a history of myasthenia gravis and thymoma resection 20 years ago. Additional medical history includes hypertension and chronic coronary disease. She had good functional status under treatment with monoclonal antibodies, pyridostigmine, a beta-blocker, amiodarone, and an angiotensin receptor blocker. The patient was admitted for surgery due to tumor recurrence, which had infiltrated the thoracic wall, requiring reconstruction of the sternal region.

Methods: After anaesthesia induction we initially performed a right sided ESPB block at T4 µε 20 ml of 0.375% ropivacaine and 8 mg of dexamethasone were administered. Maintenance of anesthesia was achieved with TCI of propofol and remifentanyl. The procedure was extended to the left side, including rib dissection from the sternum, resection of the sternum, and removal of the first two ribs on the right side. The total duration of the surgery was 8.5 hours. Before the end of the procedure, a paravertebral block was performed by the surgeons under direct vision using 20 ml of 0.375% ropivacaine. The patient was transferred to the ICU due to her medical history, the complexity of the procedure, and the duration of mechanical ventilation.

Results: Patient was extubated on D1 postop haemodynamically stable with good gas exchange. Her respiratory function was adequate. Surprisingly enough she reported no postoperative pain VAS was from 0-1 all through her ICU stay. Her functional recovery and mobilization were remarkably good and comfortable.

Conclusion: The combination of two different regional analgesia techniques was successful and provided adequate postoperative techniques. Alteration from the initial surgical plan mandated the use of the PVB block

ORAL PRESENTATIONS ABSTRACTS

OP36

CAUDAL EPIDURAL INJECTIONS FOR CHRONIC POSTSURGICAL LUMBAR PAIN IN AN ADOLESCENT

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Background: Approximately 28% of children and adolescents develop chronic postsurgical pain (CPSP) after major surgery. In spinal fusion, CPSP rates in teenagers reach 39%–100% at 3 months and 29%–68% at 6–12 months. Interventional procedures may serve as an effective treatment approach, when integrated into a multi-disciplinary care plan.

Methods: A 16-year-old female patient, with a normal BMI presented with lumbar pain at the level of the 4th lumbar vertebra. The pain had appeared several months ago, and had progressively worsened, leading to significant debilitation one week prior to presentation. The patient had a history of painful scoliosis, but no other chronic health issues or medications, and had undergone an uneventful posterior thoracolumbar interbody fusion (T3-L3) two years earlier. We proceeded with a caudal epidural injection under conscious sedation in the prone position under dynamic ultrasound guidance. A linear probe and an 80 mm hypoechoic needle were used. We slowly injected 30 mL of a solution consisting of ropivacaine 0.2%, dexamethasone 8 mg, and clonidine 1 µg/kg. Physical therapy was recommended to enhance the analgesic effect, but the patient did not comply. She remained free of pain for two weeks, after which point the pain gradually recurred, prompting a second visit to our pain service. A second caudal injection was performed, this time with a volume of 40 mL. Physical therapy was again recommended.

Results: The patient remained pain-free for 20 days following the second injection. Thereafter, the pain gradually returned. She declined further medical treatment, but began PT.

Conclusion: Our intervention offered only temporary relief, highlighting the need for a multi-disciplinary chronic pain treatment approach. Effective communication and collaboration between healthcare providers and adolescent patients and their guardians are essential in managing chronic pain. Family willingness to commit to a multi-disciplinary treatment is the first step towards successful treatment.

ORAL PRESENTATIONS ABSTRACTS

OP37

ERECTOR SPINAE PLANE BLOCK FOR OPIOID-FREE MASTECTOMY: A CASE-REPORT

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Background: The erector spinae plane block (ESPB) was first described in 2016 for the treatment of chronic thoracic neuropathic pain and postoperative pain in thoracic surgery. Various applications of the ESPB in perioperative analgesia have since been investigated. In breast surgery patients, both the thoracic ESPB (T-ESPB) and paravertebral block are proven to reduce postoperative opioid consumption. We report the successful application of the T- ESPB in a case of opioid-free mastectomy.

Methods: A female patient, 57, with a normal BMI and a smoking history of 30 pack-years, presented for mastectomy and reconstructive surgery due to unilateral multifocal breast cancer. She suffered from hypertension, for which she received treatment. Our anesthetic plan included general anesthesia and a T-ESP for perioperative analgesia. The unilateral T- ESPB was performed before induction of anesthesia, under dynamic ultrasound guidance, at the level of the fourth thoracic vertebral. The following solution was injected: 40 mL of ropivacaine 0.375%, 4 mg of dexamethasone, and 45 µg of dexmedetomidine. Total opioid-free intravenous anesthesia with continuous propofol and a bolus dose 50 µg of dexmedetomidine was administered. 1 g of acetaminophen and 50 mg of dexketoprofen were administered at the beginning of surgery. 1 g of acetaminophen was repeated six hours later.

Results: Our patient remained stable throughout the seven-hour surgery, requiring no opioids. In the post-anesthesia care unit our patient reported feeling no pain at all. Adequate pain control during the first 24 hours postoperatively was achieved with 1 g of acetaminophen every six hours. Our patient was discharged two days later.

Conclusion: The T-ESPB was safe and effective in providing perioperative analgesia for our patient's mastectomy and reconstructive surgery. Our case suggests potential for the T-ESPB to abolish perioperative opioid requirements in breast surgery, allowing for avoidance of the numerous opioid acute and chronic adverse effects.

ORAL PRESENTATIONS ABSTRACTS

OP38

INTRATHECAL SUFENTANIL VS FENTANYL FOR CHRONIC NON – MALIGNANT PAIN

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Background: Intrathecal pumps deliver medication directly into the spinal fluid, offering targeted pain relief with lower doses than systemic administration. Morphine is commonly used in this setting, but alternatives like fentanyl and sufentanil offer unique advantages. Sufentanil, though off-label, is a synthetic opioid more potent than fentanyl, with favorable pharmacokinetics for cases requiring high-dose titration and precise control. Fentanyl, while less potent, still provides effective analgesia. However, comparative clinical data are limited. The aim of this study is to directly compare the clinical effects of intrathecal morphine, fentanyl, and sufentanil in patients with non-malignant chronic pain.

Methods: This retrospective study reviewed 70 patients with non-malignant chronic pain treated via intrathecal pump at our outpatient clinic. Of these, 73% received morphine, 7% fentanyl, and 6% sufentanil; the remainder had baclofen. Sufentanil was reserved for four patients needing high concentrations and frequent dose adjustments due to opioid tolerance or pain complexity. Drug choice depended on clinical profile, pain type, and test dose response. We compared the three drugs based on pain intensity (VAS), tolerability, systemic opioid use, and functional improvement. Among sufentanil users, VAS scores were 7, 5, 5, and 3, averaging 5/10. All began on 5 mcg/day, with later titration.

Results: Both fentanyl and sufentanil effectively reduced pain, with sufentanil showing a faster response and greater reduction in systemic opioid need. While the differences were modest, sufentanil patients tended to experience quicker relief. Side effects were generally tolerable across both groups. Patients with mental health issues or high opioid tolerance saw less predictable results (Grider JS et al., 2011).

Conclusion: Opioid selection in intrathecal therapy influences outcomes in chronic pain. Sufentanil may offer advantages for patients requiring rapid onset or reduced systemic exposure. Personalizing drug choice based on patient profile enhances effectiveness and tolerability.

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ORAL PRESENTATIONS ABSTRACTS

OP39

CHRONIC PELVIC PAIN SYNDROME(CPPS) AND ITS MULTIDIMENSIONAL TREATMENT

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Objectives: Pelvic pain encompasses a variety of symptoms and significantly affects a person's physical, emotional, and social well-being. Pain is deemed chronic if it persists for six months or longer.

Methods: We examined 18 patients, ASA I–II, ages 50–76. Of these, 10 were female, and the remaining 8 were male. The cause of the pain greatly varied: women (10): 2 cystitis, 3 endometriosis, 3 irritable bowel syndrome, 2 musculoskeletal diseases. Men (8): 3 ureteral stones, 3 prostatitis, 2 urinary tract infections. Each patient has been examined by a urologist, a general surgeon, and a gynecologist. The pain level in every patient was above 8 on the VAS scale. Pharmaceutical treatment included: Paracetamol 325 mg, Tramadol HCL 37.5 mg, Pregabalin 25 mg with titration up to 300 mg daily, Etoricoxib 90 mg, Duloxetine 30–60 mg. In addition, all patients underwent electroacupuncture sessions and physical exercises that promote relaxation and strengthening of the pelvic floor.

Results: Two weeks after the initial evaluation, 11 of the patients had an improvement with VAS < 6, while the rest, 7 of them, hadn't greatly improved, VAS > 8. The pharmaceutical treatment was readjusted, and in 5 individuals psychological interventions were encouraged. After 6 weeks, 14 patients reported a VAS 5–6 and 4 patients VAS < 4. New modifications took place in the medication regimen, and after 8 weeks from the beginning of the treatment, 12 patients reported VAS=5 and 6 patients VAS<3. In 2 cases with persistent pain Botulinum toxin injections were administered.

Conclusions: These incidents made it clear that a multimodal strategy is necessary for CPPS. Until results begin to show, treatment may take a long time and a lot of work from both the patient and the medical staff. The study is still ongoing.

ORAL PRESENTATIONS ABSTRACTS

OP40

WHEN THE MOUTH BURNS AND STANDARD TREATMENTS FAIL: ACUPUNCTURE IN REFRACTORY BURNING MOUTH SYNDROME

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Background: Burning Mouth Syndrome (BMS) is a chronic pain condition characterized by persistent intraoral burning sensations without observable lesions. Psychiatric comorbidities and neuropathic pain features are commonly present in patients with BMS, which often shows limited response to conventional pharmacological treatment.

Methods: We present the case of a 78-year-old male with a 3-year history of severe burning pain localized to the left buccal mucosa and tongue, refractory to multiple medication regimens including gabapentinoids, antidepressants, and opioids, some of which paradoxically exacerbated the reported symptoms. All dental, stomatological, and psychiatric evaluations failed to reveal a treatable cause. The only finding was geographic tongue, for which appropriate treatment was suggested, without clinical improvement.

In the context of a multimodal management plan including topical clonazepam, alpha-lipoic acid, and cognitive-behavioral therapy (CBT), acupuncture emerged as the core intervention contributing to sustained symptom relief. Acupuncture treatment was initiated twice weekly, based on Traditional Chinese Medicine (TCM) principles, targeting systemic and local points associated with oral microcirculation and trigeminal modulation (ST 5, ST 6, ST 7, SI 18, GB 2, SJ 21).

Results: After eight 30-minute acupuncture sessions, the patient reported progressive improvement. By week 8, the burning pain was almost fully resolved. No adverse events were reported. The patient remained pain-free at 6-month follow-up, with significant improvement in quality of life and mood.

Conclusion: Acupuncture may offer a safe and effective therapeutic alternative in cases of refractory BMS where pharmacological approaches have failed. This case supports the incorporation of acupuncture in multidisciplinary pain management pathways for complex oral neuropathic pain.

ORAL PRESENTATIONS ABSTRACTS

OP41

IBUPROFEN TO PREEMPTIVE MULTIMODAL ANALGESIA IN TOTAL KNEE ARTHROPLASTY: A DOUBLE-BLINDED RANDOMIZED STUDYPapakitsos E.¹, **Papakitsos G.**²¹Medical School, University of Thessaloniki, Thessaloniki, Greece; ²Anaesthetic Department, General Hospital Arta, Arta, Greece

Background: Preemptive multimodal analgesia is a frequently utilized method for controlling pain after total knee arthroplasty (TKA). So far, no studies have specifically examined the efficacy of adding ibuprofen to preemptive multimodal analgesia in TKA. The current study aimed to assess the efficacy of adding ibuprofen to preemptive multimodal analgesia for clinical pain management after TKA.

Methods: This was a double-blinded randomized study including 173 patients randomized to the ibuprofen and control groups, respectively. The ibuprofen group was administered ibuprofen at 300 mg, tramadol at 100 mg and acetaminophen at 1000 mg, 30min before TKA. Control patients were administered tramadol, acetaminophen and placebo. The primary outcome was postsurgical use of morphine hydrochloride for rescue analgesia. Secondary outcomes included the time to the initial rescue analgesia, postsurgical pain as determined by a visual analogue scale (VAS), functional recovery as reflected by the range of knee motion and ambulation distance, hospitalization duration and complication rates. Continuous data with normal and skewed distributions were compared by the Student's t test and the Mann-Whitney U test, respectively. Categorical variables were compared by the Pearson's chi-squared test.

Results: The control and ibuprofen groups weren't comparable in postoperative 0-24 h morphine consumption (12.2 ± 5.8 mg vs. 9.6 ± 4.4 mg, $P = 0.043$) and total morphine consumption (18.2 ± 6.3 mg vs. 14.6 ± 5.4 mg, $P = 0.028$). By contrast, time to the initial rescue analgesia, postoperative VAS score at any time point, postoperative functional recovery of the knee and hospitalization duration were almost similar in both groups. Both groups also had similar occurrence rates of postoperative complications.

Conclusion: In this study, adding ibuprofen to preoperative preemptive multimodal analgesia decreased postoperative morphine use and ameliorated pain relief. The efficacy of adding ibuprofen to preemptive multimodal analgesia in TKA need to be further explored in future studies.

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OP42

OUR EXPERIENCE WITH ACCIDENTAL INTRATHECAL MORPHINE ADMINISTRATION DURING TOTAL ABDOMINAL HYSTERECTOMY

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Objective: To present a case of accidental intrathecal administration of an overdose of morphine in a patient undergoing total abdominal hysterectomy and to describe the perioperative management and outcome.

Materials and Methods: A 53-year-old female patient, weighing 90 kg, with a history of arterial hypertension and type 2 diabetes mellitus, was scheduled for elective open abdominal hysterectomy. Spinal anesthesia was initially performed at the L3–L4 interspace using a solution intended to contain 0.15 mg of morphine diluted in 1–1.5 mL of normal saline. Due to a dilution involving two 10 mL syringes with identical appearance, 1.5 mg of morphine was inadvertently administered intrathecally—a dose far exceeding the recommended maximum of 0.2 mg for this patient. The error was recognized by the anesthesiologist immediately after administration, upon realizing that both syringes remained on the preparation tray and that the high-concentration syringe had not been discarded.

General anesthesia was then induced using propofol, fentanyl (100 µg), and rocuronium, and maintained with volatile anesthetics and oxygen. The procedure lasted 98 minutes. Neuromuscular blockade was reversed and the patient was easily extubated without the need for naloxone. She was transferred to the Post-Anesthesia Care Unit (PACU) for intensive monitoring over six hours.

Antiemetic prophylaxis was administered intravenously. Upon transfer to the ward, detailed written instructions were provided for close monitoring of SpO₂, respiratory rate, apnea episodes, sedation level (Ramsay scale), pain (VAS 0–10 at rest and with movement), nausea, vomiting, pruritus, and patient satisfaction. A naloxone syringe was prepared and kept at bedside, although continuous infusion was not initiated. The patient remained fully conscious and cooperative throughout.

Results: The patient exhibited no adverse effects, particularly no respiratory depression or reduced respiratory rate (<8 breaths/min). VAS pain scores remained at 0 both at rest and with movement for the first 48 hours. The first dose of analgesic was administered on postoperative day 3. No pruritus, nausea, or vomiting were observed. Patient satisfaction score was 10/10.

Conclusion: Intrathecal administration of morphine provides effective postoperative analgesia for total abdominal hysterectomy. However, it requires meticulous preparation of drug dilutions, strict adherence to protocols, intensive monitoring, and readiness to manage potential complications. This case highlights the importance of error recognition, rapid intervention, and comprehensive patient surveillance in ensuring a safe outcome despite a potentially serious medication error.

ORAL PRESENTATIONS ABSTRACTS

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OP43

EFFECT OF PREOPERATIVE ANXIETY LEVEL ON POSTOPERATIVE PAIN, ANALGESIC CONSUMPTION IN PATIENTS UNDERGOING CARDIAC SURGERY

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Objectives: Patients undergoing cardiac surgery represent a challenge in terms of pain management due to multiple factors relating to the patients and to the procedure itself. Significant factors predicting greater sensitivity to postoperative pain from cardiac surgery include: experiencing preoperative pain, feeling anxiety, being younger, and being female. This prospective observational cohort study aimed to investigate the relationship between preoperative anxiety levels and postoperative pain and analgesic requirement in patients undergoing cardiac surgery.

Methods: 58 patients who underwent cardiac surgery were included in the study. After they had signed the informed consent form, the patients completed the Greek version of the State-Trait Anxiety Inventory (STAI). This is psychometric questionnaire comprises two scales measuring different facets of anxiety: state and trait anxiety. After their surgery, patients' pain was evaluated and monitored in the Cardiac Recovery Unit throughout the first 48h post-surgery. Evaluation of postoperative pain was carried out once patients had been extubated and were able to verbalize their pain. The vNRS scale was used to measure their pain (0: no pain and 10: maximum pain). Pain intensity was recorded every two hours in two daily shifts: morning (08:00 to 15:00), evening (15:00 to 22:00) and night (22:00 to 08:00). The protocol for managing cardiac surgery patients' postoperative pain at the Cardiac Recovery Unit offered two options based on medical criteria: Analgesic combination of 1g of paracetamol every 8h and 100mg of tramadol every 8h administered alternately. In addition, whenever patients expressed pain exceeding 4 on the vNRS scale, IV boluses containing 2mg of morphine hydrochloride were administered as 'rescue doses'.

Results: There was no relationship between trait anxiety level and postoperative pain and analgesic consumption. A correlation was found between state anxiety level and pain level up to 24 hours and analgesic consumption ($p < 0.05$). According to the obtained model it had been observed that the university graduates consumed more analgesic compared to other education level groups

Conclusions: In this study, a relationship was found between preoperative state anxiety level and 24-hour pain scores and analgesic consumption in patients who underwent cardiac surgery.

ORAL PRESENTATIONS ABSTRACTS

OP44

INTRAOPERATIVE DEXMEDETOMIDINE IMPROVES THE OUTCOME OF OFF –PUMP CORONARY ARTERY BYPASS SURGERY

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Objectives: Dexmedetomidine is a highly selective α_2 -adrenergic agonist that produces sedative, analgesic, and sympatholytic properties and anti-inflammatory and organ protective effects. For patients undergoing isolated coronary artery bypass grafting (CABG), each post-operative complication, such as atrial fibrillation, prolonged ventilation, reoperation, renal failure, stroke and deep sternal wound infection, substantially increased the healthcare costs.¹ The aim of this study was to investigate the effects of perioperative use of Dexmedetomidine on outcomes for patients undergoing cardiac surgery.

Methods: After obtaining the local Institutional Review Board approval, all patients who underwent off pump coronary artery bypass from 1 January, to 31 December, 2024 were entered into the study. This study was retrospective cohort study involving 161 consecutive patients. Perioperative Dexmedetomidine administration was defined as an intravenous infusion (0.25 to $0.6 \mu\text{g}\cdot\text{kg}^{-1}\cdot\text{h}^{-1}$) initiated after cardiopulmonary bypass and continued for < 24 hours postoperatively in the ICU. The infusion rate of Dexmedetomidine was adjusted according the patients' hemodynamic changes in response to stimulation. All patients were divided into 2 groups: those who used Dexmedetomidine (D group; $n=65$) and those who did not use Dexmedetomidine (ND group; $n=96$) in surgery. The duration of intubation, the intensity of pain score, and the need for more opioids after tracheal extubation were evaluated every 4 hours for 36 hours. Numerical Rating Scale (NRS) was used to evaluate pain after extubation (0- 1 no pain, 2- 3 mild pain, 4- 5 mild to moderate pain, 6- 7 moderate pain, 8- 9 moderate to severe pain, 10 severe pain).

Results: Patients in the D group had lower mean MAP and HR during extubation period than the ND group and needed fewer opioids ($P = 0.001$ and $P = 0.022$, respectively). The D group patients were extubated earlier ($P = 0.001$). After extubation, the D group had less pain than the ND group.

Conclusions: Perioperative dexmedetomidine use was associated with a decrease post-operative ventilation time, reduction of ICU length of stay, decreased incidence of postoperative complications and delirium in patients undergoing off –pump coronary artery bypass surgery.

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ORAL PRESENTATIONS ABSTRACTS

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OP45

INNOVATIVE APPROACHES TO ANALGESIC CARE IN PATIENTS WITH CHRONIC PAIN

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Introduction: Chronic pain burdens patients and undermines their functionality and daily life, while simultaneously challenging and perpetually driving medical science. It undoubtedly constitutes a field that requires continuous research and advancement, always with respect for human dignity, aiming to preserve functionality and, by extension, human dignity.

Purpose: The present study investigates and documents all innovative approaches in the analgesic care of patients with chronic pain through systematic literature review.

Materials and Methods: Searching the Google Scholar and Pubmed databases, relevant articles selected from the last five years (2019 to 2023) amount to 135 in total. They encompass findings recorded on the human body, while studies involving animals or still in progress, such as the discovery and exploration of molecular targets, are excluded from the research.

Results: The key findings demonstrate a plethora of new methods, including both invasive and non-invasive techniques, pharmaceuticals, psychological support, exercise, herbal products, sleep therapy, phototherapy, and other methods that will be discussed in detail later on. Technology, now with its own modern manifestations such as Virtual Reality, is penetrating the realm of palliative care. The goal is individualized patient management with a unique personal plan.

Conclusions: In conclusion, this study aims to highlight all the means and methods available today in the arsenal of palliative care for patients suffering from chronic pain. In closing, we emphasize the urgent need for continuous research and education of the respective medical team, with the ultimate goal of finding those suitable methods that will bring the long-awaited improvement or relief of chronic pain sensation, which may otherwise exclude the patient from an active personal and social life.

ORAL PRESENTATIONS ABSTRACTS

OP46

PREGABALIN AND CHRONIC LOW BACK PAIN

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Objective: It is well known that CLBP has a neuropathic component in up to 37% of patients. The aim of this study is to evaluate the therapeutic use of pregabalin in patients that suffer from chronic back pain with neuropathic origin.

Method: 126 patients suffering from CLBP were included in this retrospective study for a period of Jan 2023-Jan 2025. All patients were evaluated with clinical examination and the linguistically validated Greek version of DN4 questionnaire in order to identify the neuropathic component. 46 of them, 19 men and 27 women had CLBP with a neuropathic origin. The average age was 65,8 y.o.. Pain intensity was assessed with the Visual Analogue Scale and the health-status with the EQ-VAS. The study included patients who reported pain greater than VAS = 4 at the time of examination. The patients had received Cox-2 inhibitors, combination of paracetamol with tramadol and PPI with insufficient analgesic results. Pregabalin was added in a dose 25-600mg and was given by careful titration in order to avoid side effects and depending by the age of the patient. Monitoring of the patients was done over the first and second week of treatment as well as recording of results was completed after the first month of treatment.

Results: As primary endpoint result was the reduction of pain intensity by a percentage of 30%. 70(55,5%) of our patients reached the primary endpoint within the first week, while an improvement of 60% was recorded within the first month of using pregabalin. The side effects reported were evaluated as light to moderate and were limited after the first 2 to 3 days. Important was the reported improvement in sleep quality in 90% of the cases while there was a general improvement in the evaluation of health status in all the patients.

Conclusion: By adding pregabalin to patients with chronic low back pain with neuropathic component, we can improve the analgesic effect and contribute to patient satisfaction considering the improvement in their health status.

ORAL PRESENTATIONS ABSTRACTS

OP47

PREGABALIN AS AN EFFECTIVE TREATMENT FOR POSTHERPETIC NEUROPATHIC PRURITUS: A CASE REPORT

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Background: Postherpetic pruritus (PHP) is a neuropathic itch syndrome that can arise following resolution of herpes zoster, often localized to the same dermatomes affected by the rash. It is believed to result from injury or dysfunction in peripheral sensory neurons, accompanied by central sensitization mechanisms similar to those observed in postherpetic neuralgia. PHP may involve spontaneous firing of pruriceptive C-fibers, disinhibition of spinal itch pathways, and altered dorsal horn processing. Given the shared neurobiological underpinnings with neuropathic pain, treatments targeting neuronal excitability, such as gabapentinoids, may offer clinical benefit.

Methods: We present the case of a 55-year-old woman referred to our pain clinic for severe pruritus localized to the right T6–T7 thoracic dermatome, developing two months after resolution of a herpes zoster rash. She described the itch as unbearable, interfering with sleep and daily functioning (NRS itch: 9–10), accompanied by allodynia and reduced sensation to touch and temperature. Despite multiple dermatology consultations, antihistamine therapy, and acupuncture, there was no improvement.

Upon referral to our pain clinic, pregabalin was introduced at 25 mg once daily and gradually titrated to 75 mg twice daily. In parallel, duloxetine was increased to 60 mg daily, primarily to address sleep disturbances associated with itch. Antihistamines were tapered and discontinued. The therapeutic plan included structured follow-up to assess tolerability and efficacy. The patient showed progressive and sustained improvement with each follow-up.

Results: Within one month, itch intensity was reduced to NRS 5, and by week six, to NRS 0. The patient reported restored sleep, improved mood, and healing of scratch-induced skin lesions. Mild adverse effects (mild dizziness, drowsiness) were well tolerated.

Conclusion: This case highlights the utility of pregabalin in managing postherpetic neuropathic pruritus. Recognizing pruritus as a neuropathic symptom can lead to targeted and effective treatment, significantly improving patients' quality of life.

ORAL PRESENTATIONS ABSTRACTS

OP48

DIAGNOSTIC CHALLENGES BETWEEN PHANTOM TOOTH PAIN AND TRIGEMINAL NEURALGIA: A CASE REPORT

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Background: This case report highlights the challenges in diagnosing phantom tooth pain (PTP), also referred as atypical odontalgia or persistent orodental pain. Phantom tooth pain is a deafferentation pain disorder defined by persistent toothache in teeth that have been denervated, or by pain in the sites of previously extracted teeth. Often misdiagnosed, it affects an estimated 3% of individuals undergoing pulpectomy, exhibiting similarities to phantom limb pain.

Methods: Case Report

Results: A 46-year-old male reported constant, severe, electric-like pain in his upper first molar for a year. He was initially diagnosed with trigeminal neuralgia and received treatment with carbamazepine, which did not alleviate his symptoms. He complained the pain started one year earlier after the tooth's root canal treatment. Gabapentin, tramadol, and anti-inflammatory medications were administered with suboptimal outcomes. The pain spread to the entire zygoma, then described as continuous, dull, occasionally throbbing. It was typically absent during sleep but resumed after awakening. Percussion of the tooth did not affect the pain, with an absence of caries or trigger zones to elicit the pain. The pain was not affected by chewing, or yawning, and was not increased by muscle palpation, excluding myofascial pain. A diagnosis of trigeminal neuralgia was excluded based on the duration and characteristics of the pain. The treatment regimen included maintaining pregabalin at 75 mg twice daily and adding nortriptyline, as prescribed by a psychiatrist, at 10 mg once daily before bedtime. One month later, the dose was gradually increased to 25 mg, resulting in a moderate improvement in symptoms. At one-and three-month follow-up visits, the patient kept stable without relapse of pain.

Conclusion: This case report demonstrates that a multimodal and psychologically informed practice approach, tailored to the patient's characteristics, has contributed to improving his functional levels and allowing him to regain his previous quality of life.

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ORAL PRESENTATIONS ABSTRACTS

OP49

INTRAVENOUS INFUSION OF LIDOCAINE ENHANCES THE EFFICACY OF CONVENTIONAL TREATMENT OF POSTHERPETIC NEURALGIA: TWO CASE REPORTS

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Background: Most patients with postherpetic neuralgia (PHN) experience relief from pharmacological treatment, including carbamazepine, gabapentin, and pregabalin, either individually or in combination. Nevertheless, some patients continue to endure severe, unmanageable pain despite medication, or they may experience intolerable side effects from the medication requiring its discontinuation. While epidural steroid injections are employed for treating herpes zoster pain in the acute phase, their effectiveness on PHN is limited. Intravenous administration of lidocaine has been employed in the management of refractory neuropathic pain.

Methods: Two patients with herpes zoster neuritis and postherpetic neuralgia who visited our pain clinic between September 2023 and November 2025 were included. We included cases where immediate interventional therapy was not feasible, such as those involving antiplatelet/anticoagulant medications, or patients with herpes zoster/postherpetic neuralgia with an NRS score of 4+ who did not find medication relief. Patients were excluded if they had another pain syndrome affecting assessment, a history of cardiac arrhythmias or antiarrhythmic drug use, a resting heart rate under 50 bpm, or allergy to lidocaine. We treated two patients with postherpetic neuralgia by using an intravenous infusion of 100 mg lidocaine for 1 hour, once a week for 4 weeks. Pain intensity was assessed before and after each infusion, with breakthrough pain episodes in the past 24 hours documented. Potential adverse reactions to intravenous lidocaine, such as nausea, vomiting, dizziness, arrhythmia, hallucinations, tremor, and hypotension, were also recorded.

Results: Both patients experienced sound pain relief after the lidocaine intravenous therapy. One patient experienced short and mild dizziness after the therapy, but no severe side effects were reported.

Conclusion: Intravenous administration of 100mg lidocaine improved the results of PHN treatment and minimized the use of analgesics without significant adverse effects. The provided data are preliminary. Further randomized clinical trials with larger sample sizes and extended follow-up periods are essential to validate these findings.

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OP50

REFRAMING CHRONIC PAIN: A JOURNEY THROUGH SCIENCE, POLICY, AND COST

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Background: Chronic pain affects millions globally, with profound clinical, societal, and economic implications¹. While anesthesiologists have spearheaded therapeutic advances, the evolving science and policy landscape demand a broader, integrated perspective. This presentation reframes chronic pain by exploring its historical trajectory and current role as a health economic and policy issue.

Methods: A structured PubMed review (19th century–2024) identified key milestones in chronic pain science alongside the evolution of economic evaluations, including burden-of-disease studies, cost-effectiveness analyses, and policy shifts.

Results: Until the 1950s, chronic pain was scarcely addressed in scientific literature. The 1960s introduced foundational studies on psychological factors and chronicity². Recognition accelerated in the 1970s with the founding of the International Association for the Study of Pain (IASP)³ and the rise of multidisciplinary pain clinics. The 1980s brought standardized assessment tools, while the 1990s marked the expansion of opioid use and the designation of pain as the “fifth vital sign”⁴. In the 2000s, research began questioning opioid safety and effectiveness, leading to major policy changes in the 2010s, including the Centers For Disease Control and Prevention (CDC) prescribing guidelines favoring non-opioid therapies⁵. These scientific and clinical developments culminated in ICD-11’s classification of “chronic primary pain”⁶.

In parallel, economic research gained ground in the 1990s, initially measuring direct and productivity-related costs⁷. The 2000s introduced formal cost-effectiveness methodologies⁸. From 2010 onward, economic data influenced prescribing practices, reimbursement decisions, and health policy⁹. Since 2020, evaluations increasingly emphasize digital therapeutics, telehealth, multidisciplinary models, and equity-focused implementation costs¹⁰.

Conclusions: For anesthesiologists and pain professionals, applying a health economics lens is essential. As the field embraces value-based care, clinicians must interpret and engage with economic data. Chronic pain is no longer solely a clinical issue—it is a system-wide challenge demanding coordinated medical and economic strategies.

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OP51

MANAGEMENT OF TEN DIALYSIS PATIENTS WITH SPONDYLODISCITIS AT LIMASSOL GENERAL HOSPITAL (2020-2024)

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Objectives: This study describes ten dialysis patients from the Nephrology Clinic at Limassol General Hospital who presented with severe back pain, without any history of trauma. All patients had permanent central venous catheters for hemodialysis.

Methods: The study included ten ASA III/IV patients with a mean age of 74, all undergoing hemodialysis three times per week. Clinically, they exhibited significant vertebral tenderness, paravertebral muscle spasms, restricted mobility, and radiculopathy in three cases. All patients had fever, elevated C-reactive protein levels, and positive blood cultures. Treatment involved bed rest, intravenous antibiotics, and analgesic management with paracetamol 1g three times daily, gabapentin 300mg after each dialysis session, and transdermal fentanyl 25µg/72 hours.

Results: Three patients died within 10 days due to septic shock. The remaining patients showed clinical improvement and continued oral treatment. After three months, four patients were still receiving analgesics.

Conclusions: Acute spondylodiscitis typically presents with severe low back pain and less commonly as thoracic or cervical pain. In dialysis patients, central venous catheter colonization is a major source of bacterial infection. The associated pain is persistent, severe, and often challenging to manage. Neurological symptoms may occur in up to 20% of cases. Approximately 30% of patients present with fever and positive blood cultures. Mortality rates may reach 70% when spondylodiscitis is complicated by an abscess. Prompt MRI scanning is recommended for any dialysis patient reporting sudden spinal pain to ensure early diagnosis and treatment of pyogenic spondylodiscitis. Multidisciplinary collaboration among nephrologists, infectious disease specialists, orthopedic surgeons, and pain management experts is critical for optimal patient care.

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OP52

INVISIBLE PAIN IN AN IMMUNOCOMPROMISED PATIENT: NEUROPATHIC THORACIC PAIN AND CUTANEOUS ALLODYNIA IN PNEUMOCYSTIS JIROVECII PNEUMONIA

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Background: Pain in critically ill immunocompromised patients is often underestimated, especially when presenting without structural lesions. This case explores the manifestation of neuropathic thoracic pain and cutaneous hypersensitivity in a patient with chronic hepatitis B under immunosuppression, who developed *Pneumocystis jirovecii* pneumonia and a flare of pityriasis versicolor.

Case Description: A 55-year-old male with chronic hepatitis B and long-term immunosuppressive treatment was admitted to the ICU due to respiratory failure. CT imaging revealed bilateral ground-glass opacities. Bronchoalveolar lavage confirmed *Pneumocystis jirovecii* infection. The patient had a known history of recurrent pityriasis versicolor, which reappeared during ICU stay on the chest and abdomen. On day 4, he developed a sharp, burning right-sided thoracic pain, described as “skin-on-fire”, with associated cutaneous allodynia over the area of the skin lesions. No pleural effusion, rib injury, or muscle pathology was identified. Pain was resistant to intravenous opioids.

Management: A non-invasive multimodal approach was chosen due to the absence of anatomical lesions and the opioid-resistant nature of the pain. Gabapentin was initiated (300 mg TID), and a low-dose ketamine infusion (0.1 mg/kg/h) was administered for 48 hours. Opioids were withdrawn. Skin care protocols were applied to reduce mechanical triggers over inflamed areas. Environmental optimization and patient reassurance were included to support neurocognitive modulation. Pain significantly improved without the need for interventional techniques (NRS from 9 to 3 within 4 days). Cutaneous allodynia subsided progressively.

Conclusions: This case highlights a rare presentation of neuropathic thoracic pain and cutaneous allodynia in an immunocompromised patient without structural lesions. It underscores the importance of recognizing neuroimmune pain patterns and achieving effective relief through non-invasive neuromodulatory strategies in the ICU.

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OP53

**HEREDITARY SENSORY NEUROPATHY PRESENTING AS FIBROMYALGIA:
A CASE REPORT**

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Objectives: We report a rare case of hereditary sensory neuropathy in a young adult male that was presented and treated as fibromyalgia.

Methods: This is a case of a 42 yo male firefighter that presented with continuously deteriorating pain and numbness in torso, hands and legs. The patient was first evaluated 4 years ago and after a colossal effort to identify the source of pain without having any positive diagnostic results was characterized as fibromyalgia. He was monitored by a psychiatrist and was receiving, apart from several antidepressants, extremely high doses of pregabalin reaching up to 1200 mg /daily. The patient was referred to us by the psychiatrist.

Results: No radiological, electrophysiological or other usual examination revealed any kind of specific condition. After careful assessment we proceeded with lumbar puncture, laboratory and genetic control, and also muscle biopsies. The results revealed an heterozygotic defect at the chromosomal region q13.1 at the long arm of chromosome 11 related to ATL3 gene. The muscle biopsies revealed cellular neurogenic disorder. We confirmed the diagnosis of Hereditary Sensory Neuropathy type 1F (HSN1F).

Conclusions: Undiagnosed cases that can be idiopathic or are presented as a generalized condition like fibromyalgia, when the examination is not conclusive, especially in young age, should be tested for gene mutations and hereditary pain syndromes.

ORAL PRESENTATIONS ABSTRACTS

OP54

CHRISTMAS PERIOD IMPACT ON NON MALIGNANT CHRONIC PAIN PATIENTS

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Background and Aim: Christmas period has been associated with deterioration in depression and anxiety disorders. Aim of this study was to investigate pain scores in patients suffering by chronic non malignant pain, during this particular time period.

Methods: After granted permission by hospital's Ethical Committee, a questionnaire was formed, including patients' diagnosis, medication, other physical conditions, history, clinical examination, demographics, and any possible recent traumatic experience that they might have suffered from. The questionnaire was filled in for every outpatient who visited hospital's pain clinic in the last 24 months. Records were kept about each patient's visits, phone contacts, pain score fluctuation, quality of life, and need for medication modifications. Patients were assigned to groups according to their age and family status, and recorded parameters comparison was made between everyday life and Christmas period.

Results: Records analysis demonstrated statistically significant ($p < 0,01$) increase in pain scores (+3.4 VAS, 65-88% of patients), need in analgesic medication (45-126\$), pain clinic visits (32-76%), and pain clinic phone contacts (38-86%). Most affected age groups were 55-64 (67%) and > 65 (89%%), while among people living alone, in all age groups a significant increase in all recorded parameters was observed (23-89%).

Conclusions: Based on the forementioned results, it seems that an increase in pain scores, in non malignant chronic pain patients is observed during Christmas period, especially, in elderly ones, living alone. Further studies are needed to support these findings.

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OP55

MANAGING CHRONIC NEUROPATHIC PAIN AFTER HERNIA SURGERY: A CASE STUDY

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Background: A 51-year-old male patient presented to Limassol General Hospital with persistent and debilitating pain at the surgical site, six months after undergoing a second hernia repair (performed two years after the initial surgery). He reported continuous burning pain (VAS 6–7) accompanied by electric shock-like sensations. It is estimated that up to 30% of patients may experience persistent postoperative pain for up to one year, and some develop chronic pain, significantly impacting functionality and quality of life.

Methods: The patient had previously received a variety of analgesics, primarily tramadol, codeine, and NSAIDs. The surgeon had also performed several local site injections, all without meaningful relief. Given the severity of his symptoms, we initiated a gradual titration of pregabalin, reaching 450 mg daily. In addition, we performed an ultrasound-guided transversus abdominis plane (TAP) block, which included two rectus sheath blocks and one ilioinguinal nerve block (one block once per month). The blocks utilized 15 ml of 0.5% ropivacaine combined with 4 mg dexamethasone. Three months following this intervention, the patient reported significant improvement and was able to discontinue opioid therapy.

Results: Six months post-intervention, the patient reported sustained pain relief and continued exclusively on pregabalin therapy.

Conclusion: Chronic postoperative pain remains a significant clinical challenge. Employing surgical techniques that minimize nerve and tissue trauma, ensuring adequate management of acute postoperative pain, and adopting a multidisciplinary, individualized approach are essential strategies. Abdominal wall nerve blocks represent a promising modality in the treatment of chronic postoperative pain.

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OP56

NEURAXIAL ANESTHESIA FOR CAESAREAN SECTION IN A PARTURIENT WITH MYELIN OLIGODENDROCYTE ANTIBODY ASSOCIATED DISEASE (MOGAD): A CASE REPORT

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Background: Myelin Oligodendrocyte Glycoprotein Antibody-Associated Disease (MOGAD) is a rare inflammatory disorder of the central nervous system. The condition involves auto-immune-mediated demyelination of nerve fibers in the optic nerves, brain, and spinal cord, leading to neurological impairment.

Case Presentation: A 34-year-old parturient at 34 weeks of gestation, with a body mass index of 49, was admitted for a scheduled caesarean section. Her medical history included MOGAD, bilateral keratoconus, diabetes mellitus, and vocal cord papilloma. She had experienced symptoms of myelopathy in 2019, which were treated with corticosteroids. Her current medication regimen included prednisolone 20mg daily, aspirin 75mg, metformin, and enoxaparin 0.6 IU daily. Preoperative evaluations were conducted by a multidisciplinary team including a neurologist, ophthalmologist, ENT specialist, and anaesthesiologist. Her neurological status was carefully documented.

In the operating room, the patient was connected to standard monitoring. Equipment for general anaesthesia was prepared in advance. With the consent of both the neurologist and the patient, an attempt at neuraxial anaesthesia was made. Spinal anaesthesia was successfully administered using a 25G pencil-point needle (120 mm) with 12 mg of 0.5% hyperbaric bupivacaine and 15µg of fentanyl. The patient remained hemodynamically stable throughout the procedure. Postoperatively, the patient was monitored in the post-anaesthesia care unit (PACU) for 60 minutes before being transferred to the obstetric ward.

Results: The postoperative period was uneventful, and the patient was discharged six days later in stable condition.

Conclusions: Managing high-risk pregnancies such as those involving MOGAD requires a multidisciplinary approach to minimize maternal and neonatal complications. The primary anaesthetic challenge lies in selecting the most appropriate technique, as both neuraxial and general anaesthesia have been associated with potential relapse. Given the limited number of published reports, anesthetic plans should be individualized based on risk-benefit analysis and informed patient consent.

ORAL PRESENTATIONS ABSTRACTS

OP57

PECS BLOCK FOR THE MANAGEMENT OF POST THORACOTOMY CHRONIC PAIN- A CASE STUDY

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Background: A 47-year-old female patient presented to the outpatient department of Limassol General Hospital five months after undergoing a right thoracotomy. She reported severe pain (VAS 8–9) localized at the surgical site and radiating to the right anterior thoracic region. Clinical symptoms included allodynia, hyperalgesia, and a persistent burning sensation, significantly impairing her sleep and overall quality of life. This case study aims to underscore the complexities in managing post-thoracotomy chronic pain.

Methods: The patient was initially managed with tramadol, pregabalin, paracetamol, and NSAIDs, alongside physiotherapy sessions. However, the outcomes were suboptimal. Subsequently, we optimized the analgesic regimen (adjusting opioids and pregabalin), which led to mild improvement. Additionally, we performed ultrasound-guided PECS I and PECS II peripheral nerve blocks, administering 25ml of ropivacaine 0.2% and 40mg of methylprednisolone.

Results: The nerve block was successful, with the patient reporting progressive improvement in both allodynia and hyperalgesia. She continued pregabalin therapy and was able to discontinue opioid use. Although a follow-up block was scheduled, it has not been necessary to date.

Conclusion: Chronic postoperative pain is a frequent and debilitating complication that can severely impact patients' quality of life. Early diagnosis and a multidisciplinary approach are critical for effective management. Interventional techniques such as the PECS block offer valuable options for improving patient outcomes in cases of refractory post-thoracotomy pain.

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OP58

A COMPARATIVE STUDY OF SPINAL 2% LIDOCAINE: 50MG VS 60MG FOR TRANSURETHRAL RESECTION OF BLADDER TUMOR

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Background: Lidocaine is an amino-amide local anesthetic commonly used for spinal anesthesia in short urological procedures. This study aimed to compare two dosing regimens (50 mg and 60mg) of intrathecally administered 2% lidocaine.

Methods: Forty ASA I-III patients were scheduled for elective transurethral resection of bladder tumor (TUR-BT) under spinal anesthesia. They were randomly allocated into two groups: Group A (n=20) received 2,5ml and Group B (n=20) received 3ml of 2% lidocaine. Sensory and motor blockades were evaluated using pinprick test and modified Bromage score, respectively. The primary outcome was the duration of spinal blockade between the two dosing regimens.

Results: Intergroup differences were insignificant regarding age, sex, BMI and duration of the operation. Hypotension or bradycardia were successfully managed, without complications. The following table summarizes the results.

		Group A (n=20)		Group B (n=20)	
Time till Sensory Blockage (min)	Time till Motor Blockage (min)	5 ± 2	7 ± 3	4 ± 1	6 ± 2
Duration of Sensory Blockage (min)		73 ± 12		101 ± 11	
Duration of Motor Blockage (min)		53 ± 6		52 ± 6	
Time to Complete Regression of Sensory Blockage (min)		20 ± 4		20 ± 6	
Time to Complete Regression of Motor Blockage (min)		17 ± 3		31 ± 11	

Conclusion: Our study demonstrates that both dosing regimens of intrathecal 2% lidocaine provide effective sensory and motor blockades, without significant ECG alterations, central nervous system toxicity or other serious adverse events. Our findings support the use of lidocaine as a reliable spinal anesthetic agent for short urological procedures or other minor surgical interventions. The optimal dose should be individualized to the expected surgical duration and patient characteristics.

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OP59

EPIDURAL SPACE APPROACH IN PATIENTS WITH DEGENERATIVE CHANGES: MEDIAN vs PARAMEDIAN TECHNIQUE

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Background and Aim: Epidural space approach is frequently used today for either anesthetic or analgesic purposes. This technique is known to be challenging in patients with anatomical diversities (scoliosis, kyphosis) and degenerative changes of the spine. This study compares the efficacy of two different techniques of approach of the epidural space (median vs paramedian), in patients with degenerative changes of the lumbar spine.

Methods: We studied 113 patients, ASA I-III, scheduled for elective lower abdominal or urological surgery under combined general anesthesia and epidural analgesia. Patients were randomly assigned to receive epidural catheterization via either a median (Group M, n=56) or paramedian (Group P, n=57) approach. The primary outcome was the number of attempts required for successful epidural catheter placement. The secondary outcome was the overall success rate. If three attempts failed with the initial approach, the alternative technique was performed.

Results: Both groups were comparable in respect of demographic data. The table below presents the results:

	1st attempt	2nd attempt	3rd attempt
Group M (%) n = 56	34 (61%)	11 (20%)	4 (7%)
Group P (%) n = 57	48 (84%)	6 (10,5%)	3 (5,5%)

In 7 group M patients with 3 unsuccessful median attempts, the epidural space was found using the paramedian approach within two attempts. Catheter insertion was uneventful in all cases. No complications such as dural puncture, post-dural puncture headache, or paresthesia were observed.

Conclusion: The paramedian approach demonstrated greater efficacy and reliability compared to the median technique in patients with lumbar spine degenerative changes, suggesting it may be the preferred method in such cases.

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OP60

ANALGESIA USING EPIDURAL ROPIVACAINE, KETAMINE AND DEXMEDETOMIDINE IN ESOPHAGECTOMY: A CASE REPORT

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Background and Aim: Major thoracic surgeries require effective perioperative analgesia to enhance postoperative recover while minimizing opioid use and associated adverse events. We report a case of multimodal epidural analgesia during esophagectomy. The aim was to evaluate the efficacy and duration of this combination and the timing of subsequent epidural morphine.

Methods: A 66-year-old male patient with esophageal cancer underwent laparoscopic Ivor – Lewis esophagectomy under combined general and epidural anesthesia. An epidural catheter was placed at T7-T8 level preoperatively. Ropivacaine 23 mg (administered at 08:45, 11:50, 14:45), dexmedetomidine 25 µg (at 13:00), and ketamine 25 mg (at 13:00) were given epidurally. Except for 1 g paracetamol administered intravenously 30 minutes before the end of the surgery, no additional analgesic factor was used epidurally or systemically. General anesthesia was achieved with 2% sevoflurane (MAC 0.8 – 1.0). The procedure lasted 7.5 hours. Postoperatively, the patient was transferred to the High Dependency Unit (HDU) for close monitoring (ECG, MAP, spO₂). Pain was assessed using Visual Analogue Scale (VAS) and clinical parameters.

Results: The patient was hemodynamically stable during the surgery and reported no pain in the immediate postoperative period. VAS Scores remained consistently below 4 for the first 12 hours postoperatively. At the 18-hour mark, the patient reported a VAS score of 7, describing the pain as tolerable. A prophylactic dose of 2mg epidural morphine was then administered, resulting in improved comfort. No adverse events such as sedation, hypotension or bradycardia were observed.

Conclusion: This case suggests that intraoperative epidural administration of ropivacaine combined with low doses of ketamine and dexmedetomidine provides prolonged and effective analgesia. This combination appears to be safe and delays the need of rescue opioids. Further investigation in larger cohorts is warranted.

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OP61

FAST OR LASTING? INTRATHECAL CHLOROPROCAINE 1% VERSUS ROPIVACAINE 0.75% FOR ELECTIVE CESAREAN SECTIONS

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Background: Spinal anesthesia is the preferred method for elective cesarean sections due to its safety and efficacy profile. While ropivacaine is used widely in Greece, recent developments in preservative-free formulations of chloroprocaine have revived interest in its spinal application. This study aimed to compare the onset, duration, and safety profile of spinal chloroprocaine 1% versus ropivacaine 0.75% in women undergoing elective cesarean section.

Methods: A prospective, randomized, single-blind study compares the effect of an intrathecal fixed dose of chloroprocaine versus an intrathecal fixed dose of ropivacaine in ASA I-II parturients subjected to elective cesarean section under combined spinal-epidural anesthesia. Participants were allocated to group C, receiving 3.8 ml chloroprocaine 1% plus 10 µg fentanyl, and group R, receiving 1.8 ml ropivacaine 0.75% plus 10 µg fentanyl via the spinal route. The primary endpoints of this study include the onset and duration of sensory and motor blockade following intrathecal administration of either chloroprocaine or ropivacaine. Data collected also included sensory and motor block characteristics, hemodynamic parameters, pain levels at various stages of surgery and postoperatively, neonatal outcomes (Apgar scores and umbilical cord blood gases), and maternal side effects.

Results: The required time to achieve a T4 sensory block or a full motor block (Bromage 3) was no different between groups ($p=0.459$ and 0.360 , respectively). However, group C presented with a significantly shorter sensory block duration (84.5 ± 15.6 vs. 124.8 ± 14.6 , $p < 0.001$) as well as motor block duration (71.5 ± 13.1 vs. 96.3 ± 20.7 , $p < 0.001$). Other outcomes were comparable.

Conclusions: Preliminary findings suggest that spinal chloroprocaine provides a faster recovery profile compared to ropivacaine, with comparable safety outcomes for both the mother and neonate. These characteristics may render chloroprocaine a viable alternative in obstetric anesthesia, particularly in settings requiring rapid block offset and quick mobilization of the parturient.



ORAL PRESENTATIONS ABSTRACTS

OP62

INTRATHECAL NALBUPHINE WITH LEVOBUPIVACAINE FOR SPINAL ANESTHESIA IN TOTAL HIP ARTHROPLASTY: A PATH TO BETTER POSTOPERATIVE ANALGESIA

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Background: Spinal anesthesia is the most widely used and effective anesthesia technique for total hip arthroplasty (THA). Local anesthetic agents can be combined with adjuvants to improve analgesic quality and duration. We hypothesized that intrathecal nalbuphine, added to levobupivacaine, would enhance intraoperative and postoperative analgesia.

Methods: After informed consent, 60 patients, aged 18–80 years, scheduled for THA, were randomized into two groups. Group N (n=30) received 3,2 mL of 0.5% levobupivacaine with 0.4 mg nalbuphine intrathecally, while Group L (n=30) received plain 3.2 mL levobupivacaine 0.5%. Exclusion criteria included ASA score > III, BMI > 40, severe psychiatric or cognitive disorders, and allergies to study drugs. The anesthesia team was the same throughout the study, and both patients and evaluators were blinded to group allocation. All patients received 1g paracetamol intraoperatively, continued every 6 hours postoperatively, and a pericapsular nerve group (PENG) block. The primary outcome was acute postoperative pain, assessed by total morphine use within the first 24 hours.

Results: Morphine consumption at 6, 12 and 24 hours was significantly higher in group L (p<0.001). At all time points, the NRS score at rest and at motion was significantly greater in group L (p<0.001). The duration of both sensory and motor blockade were significantly higher in the group N (p<0.001). The incidence of hypotension was lower in group N.

Conclusion: Nalbuphine as an adjuvant in spinal anesthesia seems to be a safe and effective intrathecal adjuvant, reducing postoperative pain and opioid consumption in patients undergoing THA.

Table I. Morphine administration, by group

Morphine PCA (ml) (1mg/ml)	Group				p
	Levobupivacaine		Levobupivacaine+Naltubuphine		
	Mean(SD)	Median (IQR)	Mean(SD)	Median (IQR)	
6h	3.07 (0.87)	3 (2 – 4)	0.27 (0.45)	0 (0 – 1)	<0.001 [†]
12h	5.07 (1.2)	5 (4 – 6)	1.8 (0.76)	2 (1 – 2)	<0.001 [†]
24h	7 (1.44)	7 (6 – 8)	2.67 (0.71)	3 (2 – 3)	<0.001 [†]
Change from 6h to 24h	3.93 (0.94)	4 (3 – 5)	2.4 (0.62)	2 (2 – 3)	<0.001 [‡]
p [§]	<0.001		<0.001		

[†]p-value for group comparisons; [‡]p-value for time comparisons; [§]p-value via repeated measures ANOVA for comparing the change between the 2 groups (after logarithmic transformation)

Table II. NRS scores, by group

		Group				p
		Levobupivacaine		Levobupivacaine+Nalbuphine		
		Mean(SD)	Median (IQR)	Mean(SD)	Median (IQR)	
NRS at rest	4h	4.13 (1.04)	4 (3 – 5)	0.8 (0.76)	1 (0 – 1)	<0.001 [†]
	6h	4.53 (0.73)	4 (4 – 5)	1.2 (1)	1 (0 – 2)	<0.001 [†]
	12h	4.2 (0.66)	4 (4 – 5)	2 (0.53)	2 (2 – 2)	<0.001 [†]
	24h	4.53 (0.97)	4 (4 – 5)	1.8 (0.76)	2 (1 – 2)	<0.001 [†]
	48h	3.53 (0.73)	4 (3 – 4)	1.13 (0.63)	1 (1 – 2)	<0.001 [†]
	Change from 4h to 48h	-0.6 (1.43)	-1 (-2 – 1)	0.33 (0.96)	0 (0 – 1)	<0.001 [‡]
P [†]		<0.001		<0.001		
NRS at motion	4h	7.13 (0.9)	7 (7 – 8)	3.87 (0.97)	4 (3 – 5)	<0.001 [†]
	6h	7.4 (0.62)	7 (7 – 8)	4.2 (0.92)	4 (3 – 5)	<0.001 [†]
	12h	6.73 (0.94)	7 (6 – 8)	4.4 (0.5)	4 (4 – 5)	<0.001 [†]
	24h	5.4 (0.81)	5 (5 – 6)	3.6 (0.72)	3 (3 – 4)	<0.001 [†]
	48h	4.67 (0.48)	5 (4 – 5)	2.93 (0.58)	3 (3 – 3)	<0.001 [†]
	Change from 4h to 48h	-2.47 (0.97)	-3 (-3 – -2)	-0.93 (0.87)	-1 (-2 – 0)	<0.001 [‡]
P [†]		<0.001		<0.001		

ORAL PRESENTATIONS ABSTRACTS

OP63

MANAGEMENT OF CHRONIC PAIN DUE TO THORACIC OUTLET SYNDROME USING REGIONAL ANAESTHESIA

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Objective: Clinical presentation and successful management of a patient presenting with chronic pain, due to Thoracic Outlet Syndrome caused by fibrotic and enlarged left anterior scalene muscle

Case: A 50-year-old patient presented to our pain clinic with pain at the region innervated by the left ulnar nerve, cervical pain, paraesthesia and muscle weakness of the left upper limb. The MRI depicted an oedematous and fibrous left anterior scalene muscle compressing the brachial plexus at C7 level. Pregabalin and dexamethasone administration for 3 months had little to no effect and subsequently, the combination of gabapentin and tapentadol along with vitamins B1, B6, B12 and lidocaine patches were prescribed, but poorly tolerated by the patient. After the performance of an ultrasound guided intrascalene injection of 4ml of Ropivacaine 0,2% and a corticosteroid, the pain relief was immediate and the NRS reduced from 8/10 to 4/10. After the application of capsaicin patches twice, the NRS score was reported to be 1/10 and lasted for at least 1 year later.

Conclusion: This case describes the contribution of regional anaesthesia to the successful, multimodal management of chronic pain due to Thoracic Outlet Syndrome, when conventional pharmacologic therapy has failed.

ORAL PRESENTATIONS ABSTRACTS

OP64

ADDUCTOR CANAL BLOCK WITH LOCAL INFILTRATION VS ADDUCTOR CANAL BLOCK AND IPACK BLOCK FOR POSTOPERATIVE ANALGESIA IN TOTAL KNEE ARTHROPLASTY: A PILOT CLINICAL STUDY

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Objectives: Total knee arthroplasty (TKA) is frequently associated with significant postoperative pain. According to the current guidelines, the adductor canal block (ACB) in combination with local infiltration analgesia (LIA) are recommended. More recently, the Infiltration between the Popliteal Artery and the Capsule of the posterior Knee (IPACK) block has emerged as a regional anesthesia technique that may also have a valuable role within multimodal analgesia protocols in patients undergoing TKA. This pilot clinical study was conducted to evaluate the efficacy of the IPACK block, focusing primarily on postoperative analgesia and opioid consumption and secondarily on other patient-related outcomes, such as the incidence of postoperative complications and overall patient satisfaction.

Methods: A total of 20 patients undergoing total knee arthroplasty under spinal anesthesia were included in this pilot study and randomly divided into two groups of 10. In the control group, ACB and LIA were performed, while in the intervention group, ACB was combined with the IPACK block. Postoperatively, pain at rest and during movement was assessed at 24 and 48 hours, along with opioid consumption during the first 48 hours, the incidence of postoperative complications, and patient satisfaction.

Results: Although pain scores were consistently lower in the IPACK group, the differences were not statistically significant ($p > 0.05$). However, morphine consumption was significantly lower in the IPACK group [9.91 ± 2.8 mg vs. 14.24 ± 3.94 mg; $p = 0.011$]. No significant differences were observed between groups in terms of postoperative adverse events and patient satisfaction ($p > 0.05$).

Conclusions: The implementation of the IPACK block appears to have a valuable role within preemptive multimodal analgesia protocols, as it provides highly satisfactory analgesic outcomes and is associated with reduced opioid consumption compared to the standard postoperative analgesia protocol recommended by current guidelines.

ORAL PRESENTATIONS ABSTRACTS

ORAL PRESENTATIONS VII

OP65

ACUPUNCTURE AS AN INTEGRATIVE APPROACH FOR CHRONIC VISCERAL PAIN IN A PEDIATRIC PATIENT WITH REFRACTORY ABDOMINAL SYMPTOMS

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Background: A 14-year-old female presented with intractable nausea, vomiting, and severe epigastric pain. Initial investigations suggested superior mesenteric artery (SMA) syndrome, leading to surgical decompression. Despite technically successful intervention, symptoms persisted unabated. A second diagnostic laparoscopy yielded no abnormal findings, and extensive gastrointestinal evaluations at a tertiary center excluded structural or inflammatory pathology.

Methods: With both surgical and pharmacological approaches—including continuous intravenous nalbuphine—proving insufficient, the patient was referred for integrative management. Acupuncture was initiated using a systemic protocol typically employed for widespread somatic pain, tailored in this case to prioritize the modulation of visceral pain. Point selection aimed to influence central pain processing and autonomic function, reduce sympathetic overdrive, and promote parasympathetic tone.

Results: The patient continues to experience ongoing visceral-peristaltic pain, characterized by rhythmic exacerbations approximately every five minutes, accompanied by intermittent vomiting. Introduction of acupuncture has resulted in a modest but clinically meaningful reduction in pain severity during exacerbation peaks, with improved overall symptom tolerability. Treatment is ongoing, and the acupuncture protocol is dynamically adjusted in response to evolving clinical feedback.

Conclusion: This case underscores the complexity of diagnosing and treating chronic abdominal pain in pediatric patients, particularly when conventional interventions fail to yield results. Acupuncture, when applied within a structured systemic framework and directed specifically at visceral pain mechanisms, may offer a valuable adjunct in the management of treatment-resistant functional abdominal pain. The integration of acupuncture into multi-disciplinary care represents a promising avenue for improving outcomes in this challenging patient population.

ORAL PRESENTATIONS ABSTRACTS

OP66

GENETIC PREDICTORS OF ANALGESIC RESPONSE TO ACUPUNCTURE: A SYSTEMATIC REVIEW OF THEIR ROLE IN PREDICTING RESPONSE TO ACUPUNCTURE

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Objective: This systematic review aimed to identify genetic variants that influence individual responsiveness to acupuncture and to investigate the underlying biological mechanisms across both health and disease conditions.

Methods: A comprehensive search was conducted in December 2024 using four electronic databases: PubMed, Cochrane Library, Scopus, and ScienceDirect. Studies included in the review assessed the relationship between genetic polymorphisms and responses to different forms of acupuncture—manual (MA), electroacupuncture (EA), or auricular (AA). The methodological quality of the selected studies was evaluated using the Cochrane risk-of-bias tool and the STRICTA (Standards for Reporting Interventions in Controlled Trials of Acupuncture) checklist.

Results: Eight studies met the inclusion criteria, with five being secondary analyses of existing randomized controlled trials. The genetic markers examined were involved in key physiological pathways, including neurotransmission (COMT, ADORA1, DRD2A2), thermoregulation (TRPV1), and immune/inflammatory response (TCL1A, IL1A, HTR1A, NfκB). Findings suggest that the effectiveness of acupuncture may depend on genetic profiles that correspond to the specific pathophysiology of the condition being treated. Thus, genetic variation appears to influence acupuncture outcomes in a condition-specific manner.

Conclusion: Further research is needed with larger sample sizes, rigorous sham-controlled methodologies, and consistent outcome measures. Future studies should also include responder analyses to clarify how genetic differences affect treatment response and to support the development of personalized acupuncture therapies.

ORAL PRESENTATIONS ABSTRACTS

OP67

MUSIC THERAPY IN PALLIATIVE CARE FOR BREAST CANCER PATIENTS: A SYSTEMATIC REVIEW

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Background: Breast cancer remains one of the most prevalent malignancies globally, with patients often experiencing not only physical symptoms but also psychological burdens such as anxiety, depression, and chronic pain. Palliative care emphasizes a holistic approach, aiming to alleviate suffering across physical, emotional, and spiritual dimensions. Music therapy has emerged as a promising, non pharmacological intervention that addresses these multidimensional needs, especially in advanced cancer settings.

Methods: A systematic review was conducted in accordance with PRISMA guidelines. Searches were performed in PubMed, Cochrane Library, and Scopus databases, excluding systematic reviews and focusing on randomized controlled trials (RCTs) published between 2000 and 2024. Eligibility criteria included studies involving breast cancer patients receiving palliative care and employing music therapy interventions. The methodological quality of the included RCTs was assessed using the Cochrane Risk of Bias Tool.

Results: Twelve randomized controlled trials involving a total of 980 breast cancer patients receiving palliative care were included. The interventions ranged from brief, single-session music therapy to structured programs lasting several weeks. Across the studies, music therapy was consistently associated with reductions in self-reported anxiety and depressive symptoms, improved emotional expression, and enhanced coping capacity. Patients also reported subjective relief from physical discomfort and pain, particularly during chemotherapy or invasive procedures. Interventions involving patient-preferred music and live music sessions tailored to the emotional state of the individual appeared to yield the most favorable outcomes. Furthermore, music therapy was found to foster a sense of personal agency, emotional connection, and spiritual comfort, contributing positively to patients' overall quality of life.

Conclusions: Music therapy is a safe, low-cost, and effective adjunct in the palliative management of breast cancer patients. Its impact on emotional well-being and pain relief highlights its potential as a core component of holistic cancer care. Integration into interdisciplinary palliative care teams is recommended, with emphasis on patient's autonomy, cultural relevance, and accessibility—even in low-resource settings.

ORAL PRESENTATIONS ABSTRACTS

OP68

THE ROLE OF MINDFULNESS IN POSTOPERATIVE PAIN MANAGEMENT IN AN UNSTABLE PSYCHIATRIC PATIENT WITH SCHIZOPHRENIA: AN ANESTHESIOLOGY CASE REPORT

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Background: Postoperative pain control in patients with severe psychiatric disorders presents unique challenges. Schizophrenia is associated with altered pain perception, poor treatment compliance, and increased risk for delirium. Pharmacologic management may be complicated by antipsychotic polytherapy and cardiac concerns (e.g., QT prolongation). Mindfulness-based interventions have demonstrated benefit in reducing postoperative pain and opioid requirements, but their use in psychotic patients remains largely unexplored.

Case Description: A 38-year-old woman with poorly controlled paranoid schizophrenia (on clozapine 450 mg/day, olanzapine 20 mg/day, and long-acting injectable aripiprazole) presented with acute abdomen after ingesting a large volume of liquid soap in a self-injurious act, resulting in gastric perforation. Emergency surgical repair was performed under total intravenous anesthesia (TIVA) using propofol and dexmedetomidine, with close QTc monitoring and minimal opioid use intraoperatively. Postoperatively, a multimodal analgesia regimen was initiated (paracetamol, ibuprofen, and IV morphine via PCA). Starting in the recovery room, the patient also participated in structured 10-minute guided mindfulness breathing sessions (body-scan technique) every 8 hours for 48 hours, led by an anesthesiologist trained in pain management.

Results: The patient reported a significant reduction in pain scores (NRS decreased from 4.8 to 2.6 on average over the first 24 hours). Total morphine consumption during the first 48 hours was approximately 32% lower compared to departmental averages for similar procedures. She mobilized earlier than expected, remained hemodynamically stable, and showed no signs of psychiatric decompensation or postoperative delirium.

Conclusion: Mindfulness can serve as a safe and effective adjunct for postoperative pain control even in high-risk psychiatric patients. Integrating short, structured mindfulness interventions into perioperative care may enhance recovery, reduce opioid use, and support psychological stability in complex clinical populations.

ORAL PRESENTATIONS ABSTRACTS

OP69

THE EFFECTS OF QIGONG EXERCISE ON CHRONIC LOW BACK PAIN IN ADULTS: A SYSTEMATIC REVIEW AND META-ANALYSIS OF RANDOMIZED CONTROLLED TRIALS

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Objectives: Chronic low back pain (CLBP) remains a prevalent and disabling condition globally. Given the growing clinical interest in non-pharmacological and movement-based therapies, it is important to evaluate the effects of Qigong alone on pain and disability in adults with CLBP.

Methods: A systematic review and meta-analysis was conducted according to PRISMA guidelines in MEDLINE (Medical Literature Analysis and Retrieval System Online), Embase, Physiotherapy Evidence Database (PEDro), and the Cochrane Library. Pain and disability were the primary outcomes. Risk of bias (RoB) was assessed independently by two reviewers using Cochrane's RoB 2 tool. GRADE (Grading of Recommendations Assessment, Development and Evaluation) approach was used to assess the certainty of the evidence. Pain and disability outcomes were pooled using random-effects models, and standardized mean differences (SMD) with 95% confidence intervals (CI) were calculated.

Results: A total of 468 records were identified in the initial search out of which after duplicate removal, and screening five studies were included for analysis. Qigong significantly reduced pain compared to control interventions (SMD = -1.00; 95% CI -1.84 to -0.17; $p = 0.02$). Disability scores also improved (SMD = -0.72; 95% CI -1.44 to -0.00; $p = 0.05$). Subgroup analyses showed greater effects against passive controls. Heterogeneity was high ($I^2 > 90\%$), likely due to differences in Qigong style, control type, and intervention duration.

Conclusions: Qigong is associated with moderate improvements in pain and disability in individuals with CLBP. These findings support its clinical use as a complementary therapeutic option, though future trials should adopt standardized protocols to reduce variability in outcomes.

ORAL PRESENTATIONS ABSTRACTS

OP70

A PILOT STUDY INVESTIGATING QIGONG VERSUS USUAL EXERCISES IN ADULTS WITH CHRONIC NON-SPECIFIC NECK PAIN**Katsareli M.**¹, Fyrfiris N.², Billis E.³, Sotiropoulos S.¹¹*Central Physio Clinic, Athens, Greece;* ²*“Saint Savvas” anticancer-Oncology Hospital, Athens, Greece;* ³*University of Patras, Department of Physiotherapy*

Objectives: Chronic non-specific neck pain is among the most common musculoskeletal disorders, affecting approximately 45–54% of adults. Exercise-based interventions, particularly strengthening exercises, are considered a first-line treatment. However, alternative modalities, such as Qigong have gained increasing attention for their potential to improve physical function and address psychological aspects related to chronic pain. This study aimed to examine the effects of a Baduanjin Qigong program compared to conventional physiotherapy on pain, function, anxiety, depression and quality of life.

Methods: A single-blinded pilot study was conducted with 20 participants aged 18–65 years with chronic non-specific neck pain, randomly allocated to a Qigong group (n=10) or a physiotherapy group (n=10). Both groups received supervised sessions twice weekly for 8 weeks (16 sessions) and were instructed to continue daily home-based exercises for an additional 8 weeks. Outcomes included pain (NPRS), function (NDI), anxiety and depression (HADS), quality of life (SF-12), and exercise adherence (EARS). Pressure pain sensitivity in the trapezius and tibialis anterior muscles (bilaterally) was assessed using a pressure algometer, and cervical range of motion was evaluated using a goniometer. Measurements were taken at baseline, week 8, and week 16.

Results: Both groups showed significant improvements in pain, function, anxiety, depression, and quality of life ($p < 0.05$). Pressure pain sensitivity was significantly reduced at all tested sites ($p < 0.05$). In the Qigong group, range of motion improved in flexion ($p = 0.033$) and right lateral flexion ($p = 0.003$).

Conclusion: Qigong may be as effective as conventional physiotherapy in improving physical and psychological outcomes in chronic neck pain.

ORAL PRESENTATIONS ABSTRACTS

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OP71

THE EFFICACY AND SAFETY OF ACUPUNCTURE FOR CHEMOTHERAPY-INDUCED PERIPHERAL NEUROPATHY IN A PANCREATIC CANCER SURVIVOR. A CASE REPORT

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Background: Chemotherapy-induced peripheral neuropathy (CIPN) is a distressing complication that significantly affects the functional performance and quality of life of cancer survivors. As the pathogenesis of CIPN is not fully understood, its prevention and treatment remain major clinical challenges. Acupuncture has been used to alleviate symptoms in cancer patients and in cases of peripheral neuropathies, including diabetic neuropathy and CIPN.

Aim: To evaluate the efficacy of acupuncture in treating CIPN in a pancreatic cancer survivor.

Methods: A 44-year-old male patient with pancreatic cancer underwent a Whipple procedure followed by 12 cycles of FOLFIRINOX chemotherapy (a combination of 5-fluorouracil, oxaliplatin, irinotecan, and leucovorin). Following chemotherapy, he developed classic “stocking and glove” neuropathic symptoms: numbness, tingling, and burning pain in his extremities. His DN4 score was 9/10, and symptom intensity was rated 10/10 on the Numeric Rating Scale (NRS). For symptom management, the patient initially tried a short course of pregabalin (75 mg TID), 8% capsaicin dermal patches, and antioxidant agents, with no relief. Due to persistent symptom severity, acupuncture treatment was initiated. The patient received weekly 30-minute acupuncture sessions for 15 weeks. Selected acupuncture points included:

- Auricular Shen Men
- LI-4 (Hegu)
- SP6 (Sanyinjiao)
- ST36 (Zusanli)
- Baxie (Ex-UE9) Bafeng (Ex-LE10)

Results: After 6 sessions, the intensity of neuropathic symptoms decreased by 30% (NRS 7/10). By the end of the 15th session, the patient rated his burning pain and tingling as 2/10 and his numbness as 5/10 on the NRS. The DN4 score was reduced to 5/10. Overall, there was a significant reduction in symptoms, along with reported improvements in sleep and daily functioning. No adverse effects were observed during the treatment period.

Conclusion: Acupuncture appears to be a safe and potentially valuable integrative care option for alleviating CIPN symptoms in pancreatic cancer survivors. While acupuncture has been studied in other cancer populations, reports specific to pancreatic cancer remain limited. Larger, controlled studies are warranted to confirm these preliminary findings.

Reference: Bao T, Patil S, Chen C, Zhi I, Li Q, Piulson, L; Mao J. Effect of Acupuncture vs Sham Procedure on Chemotherapy-Induced Peripheral Neuropathy Symptoms A Randomized Clinical Trial JAMA Network Open. 2020;3(3):e200681. doi:10.1001/jamanetworkopen.2020.0681

ORAL PRESENTATIONS ABSTRACTS

OP72

RESTLESS LEG SYNDROME: A PAIN MEDICINE PERSPECTIVE OF UNSETTLED NIGHTS

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Objectives: Restless Leg Syndrome (RLS), also known as Willis-Ekbom disease, is a neurological disorder marked by an insatiable desire to move the legs, frequently coupled with unpleasant feelings. Periods of relaxation or inactivity, especially in the evenings and at night, usually cause or exacerbate the symptoms. The patient might feel crawling, creeping, itching, or aching, similar to neuropathic pain. Temporary alleviation is achieved by moving the legs, however once legs are at rest again, the symptoms frequently return. We document and share our pain clinic's fifteen-year experience in helping patients with RLS.

Methods: We studied 8 patients, aged 65-76, during that period. All of them met the 5 diagnostic criteria from IRLSSG. 5 of them came to our clinic after being diagnosed by other specialties, but 3 of them were undiagnosed at their initial evaluation. The severity of their symptoms was ranging from moderate to very severe, based on the RLS rating scale, while all of them were complaining about their sleep quality. Three of the participants in our study had iron deficiencies, for which they were referred to an internal medicine physician, and half of the participants had diabetes mellitus in their medical histories. The first step of the treatment was lifestyle changes, including caffeine and alcohol withdrawal. The pharmaceutical protocol included Alprazolam 0.5 mg 1x1, Pregabalin 25mg which was titrated up to 75mg, Etoricoxib 90mg for 5 days and we re-evaluate the patients. In 3 cases we added Duloxetine 30mg 1x1. In addition, we advised hot showers in the evening and activities that distract the patient during episodes of RLS.

Results: After 1 month from the initial evaluation 3 patients had a significant improvement with a VAS<3 and an improvement on the RLS scale of at least 10 units. The rest of them had a minor yet important improvement with a VAS 6-7 and an improvement on RLS scale ranging from 5 to 20 units. In these persistent cases we tried various interventions, including: titrating medication, modifications to the medication's dosage schedule and psychological support sessions. Three of these patients displayed further improvement, but two of them continued to experience severe discomfort.

Conclusions: Treatment for Restless Legs Syndrome must be multifaceted, it requires lots of specialties and include both pharmaceutical and non-pharmacological interventions. But more importantly, it requires ongoing observation and assessment to provide the best possible outcomes for the patients and their families, which is why pain clinics play such a significant role for these patients.

ORAL PRESENTATIONS ABSTRACTS

OP73

TRANSCUTANEOUS PULSED AND RANDOMIZED NEUROLYSIS: A NON-INVASIVE AND EFFECTIVE APPROACH FOR CHRONIC POSTOPERATIVE KNEE PAIN

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Objectives: Chronic postoperative pain, particularly following orthopedic procedures, presents a significant challenge for both patients and clinicians. Traditional treatments may offer limited efficacy or involve invasive techniques with considerable recovery time. With this clinical case we aim to present the clinical outcome of a patient with chronic postoperative knee pain treated with Transcutaneous Pulsed and Randomized Neurolysis (TCPRF) a non-invasive, painless method requiring no anesthesia or sedation.

Clinical case: A 73-year-old patient with a known history of knee osteoarthritis (OA) presented with persistent knee pain and edema, reported to have started immediately after surgery, with no symptom relief for six months. Pain intensity was rated between 8 and 10 on the Numeric Pain Rating Scale (NPRS). The patient underwent three sessions of TCPRF therapy, delivered via transcutaneous electrodes targeting the affected area. No analgesia or sedation was administered. Each session was completed on an outpatient basis, without complications or need for recovery time.

Conclusions: TCPRF using transcutaneous electrodes represents a safe, effective, and non-invasive option for the management of chronic or acute postoperative knee pain. This method may provide substantial pain relief without the need for pharmacologic therapy, anesthesia, or recovery downtime, and warrants further investigation in larger patient populations.

ORAL PRESENTATIONS ABSTRACTS

OP74

CASE REPORT: NON-INVASIVE TREATMENT OF CHRONIC POSTOPERATIVE KNEE PAIN USING TRANSCUTANEOUS PULSE RADIOFREQUENCY

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Background: Transcutaneous Pulse radiofrequency (TcPRF) represent a NON-invasive and risk-free treatment, particularly for patients seeking to avoid invasive pain management procedures.

Methods: A female patient, after major oncologic surgery for resection of a large mass in the upper third of the medial head of the gastrocnemius muscle, measuring $7.2 \times 5 \times 5.1$ cm, with a concurrent lesion on the lateral border of the tibial bone, presented to our pain clinic reporting a pain level of 10/10 on the NPRS scale. Eight months later, after all pharmacological treatments had failed, was decided to proceed to TcPRF therapy consisted of 3 weekly sessions.

Results: The patient reported gradual improvement even after first session. The pain level dropped to 2–3 on the NPRS scale after the third treatment, and remained at this level for 8 months, when it started gradually to increase again and the TcPRF treatment was repeated without any side effects or discomfort, with the same results.

Conclusion: The use of epidermal electrodes for pulsed and randomized neurolysis appears to be an effective, NON-invasive method of pain management.

ORAL PRESENTATIONS ABSTRACTS

ORAL PRESENTATIONS VIII

OP75

APPLICATION OF GANGLION LOCAL OPIOID ANALGESIA (GLOA) IN THE MANAGEMENT OF TRIGEMINAL NEURALGIA: DESCRIPTION OF THE METHOD

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Objectives: Trigeminal neuralgia is a chronic pain disorder with several treatment options, ranging from medications to surgical procedures, which may be limited by side effects or procedural risks. The GLOA method is a minimally invasive technique involving the targeted injection of opioids directly into the region of the Ganglion cervicale superius and this review aims to evaluate the efficacy, safety and clinical applicability of GLOA in the management of trigeminal neuralgia.

Methods: Sympathetic nerve blocks are among the established treatment methods in pain medicine. In 1981 began SPOTTE to replace sympathetic nerve blocks with local opioid analgesia and this type of therapy was named "Ganglionic Local Opioid Analgesia "(GLOA). The superior cervical ganglion, part of the sympathetic chain, is a crucial relay station for sympathetic innervation to the head and face. By delivering microdoses of buprenorphine or morphine transoral into the parapharyngeal space at the level of the second cervical vertebra the GLOA technique aims to modulate sympathetic afferent interactions that contribute to pain amplification in trigeminal neuralgia. The patient sits with their mouth open in front of the treating physician and the pharynx is illuminated using a laryngoscope. The guiding instrument is inserted under laryngoscopic visual control and its rounded end plate is gently pressed against the posterior pharyngeal wall. The injection cannula is already fitted with the syringe with Buprenorphin and is inserted into the guiding instrument. Treatment typically starts with daily injections over 8 to 10 days and observing the patient's response to the treatment, the injection intervals can be extended to every two or three days and after a short time to once a week. Afterwards if analgesia remains stable, oral pharmacotherapy can be tapered off.

Result Responders of GLOA show a dramatic improvement in symptoms after the 4th or 5th injection, with minimal side effects such as mild pain, burning or pressure at the injection site.

Conclusions: This treatment method does not replace established conservative or surgical therapeutic procedures but represents a highly valuable addition to the therapeutic spectrum.

ORAL PRESENTATIONS ABSTRACTS

OP76

MANAGEMENT OF CHRONIC LUMBOSACRAL PAIN DUE TO BERTOLOTTI'S SYNDROME USING RADIOFREQUENCY ABLATION

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Objective: Presentation of the successful management of a patient with chronic lumbosacral pain, due to Bertolotti's Syndrome, using radiofrequency ablation technique

Case: A 33-year-old female patient presented to our pain clinic with a history of low back pain and left upper buttock pain which initiated 5 years ago. She was diagnosed with an elongated left L5 transverse process in contact with sacral ala (Bertolotti's Syndrome). She had experienced episodes of severe sharp pain (NRS 8/10) presenting mostly at night hours on a monthly basis, with a 2-3 days duration. Both pharmacologic therapy with paracetamol and NSAIDs, combined with physiotherapy, had little contribution to analgesia. Fluoroscopically guided corticosteroid injection, also did not manage to eliminate her pain. Complete pain relief was achieved using bilateral continuous thermal radiofrequency ablation at 75 degrees Celsius applied for 4 minutes at each side, as well as injection of 10ml of Ropivacaine 0.2% at each side. The patient reported that she was pain free, even at her 6-month follow – up visit.

Conclusion: This case describes the contribution of radiofrequency ablation to the successful, multimodal management of chronic lumbosacral pain due to Bertolotti's Syndrome, when conventional pharmacologic therapy has failed.

OP77

TREATMENT OF PERSISTENT NEURALGIA OF THE 1ST AND 2ND BRANCHES OF THE TRIGEMINAL NERVE

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Objectives: Radiofrequency ablation is non_surgical method for trigeminal neuralgia treatment

Method: A 67-year-old man patient, with none pathological history, presented with persistent pain in the 1st and 2nd branches of trigeminal nerve.

Due to the failure of medication (Pregabalin 600 mg, Carbamazepine 400 mg, Duloxetine 60 mg, Oxycodone 60 mg, Paracetamol 3.6 gr daily), infiltration was performed in supra- and infraorbital foramen with local anaesthetic (1.5 ml Ropivacaine), which resulted in complete recession of symptoms. After that, was decided to apply neurolysis to the mentioned points. Thermal neurolysis (80 OC, 5 min) was applied to each point after infiltration of 0.5 ml lidocaine

Result: The result was the complete elimination of symptoms for 10 months. During this period, the patient reported no pain and no side effects, except an oedema supra and infraorbital, which lasted the first 3 days after the procedure. When the symptoms reappeared, the treatment was repeated without any side effects for the patient.

Conclusion: Thermal neurolysis is a safe and effective technique for the treatment of chronic pain.

ORAL PRESENTATIONS ABSTRACTS

OP78

A NOVEL CRYOABLATION TECHNIQUE TO LATERAL LOW BACK PAIN

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Objectives: We present a novel application of cryoablation for treating lateral low back pain in elderly patients who previously responded to diagnostic blocks of the superior and middle cluneal nerves.

Methods: Three female patients, aged 81–85, with chronic lateral low back pain underwent targeted cryoablation using a long curved cryoprobe, typically indicated for sacroiliac joint pain. Under fluoroscopic guidance, cryoablation was applied to the middle cluneal nerves at the medial edge of the ipsilateral sacroiliac joint, and to the superior cluneal nerves at the midportion of the iliac crest. The anatomical targets had been previously confirmed by ultrasound-guided diagnostic nerve blocks.

Results: All three patients experienced approximately 80% pain reduction on the Visual Analogue Scale (VAS) immediately following the procedure, with sustained benefit for up to six months. Quality of life improved significantly, and no complications or adverse effects were reported during the follow-up period.

Conclusions: This case series demonstrates that cryoablation with specialized probes adapted to the anatomical distribution of the cluneal nerves may offer a safe and effective treatment for selected patients with refractory lateral low back pain. The technique may be particularly valuable for elderly patients who are unsuitable for more invasive procedures. Further investigation in larger populations is warranted to validate these promising preliminary results.

ORAL PRESENTATIONS ABSTRACTS

OP79

INTRATHECAL MORPHINE PUMP FOR REFRACTORY PAIN FOLLOWING THORACIC SPINE SURGERY: A CASE REPORT

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Background: Chronic pain is a major health burden, often resistant to systemic opioids due to limited efficacy or intolerable side effects. Intrathecal (IT) morphine offers a targeted alternative by delivering the drug directly into the cerebrospinal fluid, allowing for lower doses, improved analgesia, and reduced systemic toxicity. It is particularly valuable in patients with chronic refractory pain, such as cancer or neuropathic pain, who have failed standard therapies. Proper patient selection and multidisciplinary management are essential for safe and effective use.

Methods: We report the case of a 69-year-old man who underwent surgery for a thoracic spine lesion and subsequently developed paraplegia. He presented to our chronic pain department with severe neuropathic pain, rated as 8/10 on the Numerical Rating Scale (NRS) and 9/10 on the DN4 questionnaire. Despite optimized multimodal analgesia, including opioids and adjuvant medications, his pain remained refractory. Given the severity and chronicity of his symptoms, and his limited response to medication, the decision was made to proceed with intrathecal morphine therapy. An intrathecal catheter was inserted, and an electronic morphine pump was implanted to provide continuous analgesia.

Results: Following implantation of the electronic pump, the patient experienced a marked reduction in neuropathic pain. His NRS score decreased from 8/10 to 2–3/10 at rest and to 4/10 during mobilization. Systemic opioid and oral medication was reduced 50%. During the 6-month follow-up, the patient reported improved sleep increased by 55% in PHQ-9 questionnaire. No infusion-related complications—such as catheter migration, infection, granuloma formation, or pump malfunction—were observed.

Conclusion: Intrathecal morphine pump therapy proved to be an effective and safe option for managing refractory neuropathic pain following thoracic spine surgery with significant reduce in pain relief and systemic opioid use. This approach should be considered in well-selected patients unresponsive to conventional treatments carefully to ensure optimal outcomes.

ORAL PRESENTATIONS ABSTRACTS

OP80

EFFECTIVE USE OF SPINAL CORD STIMULATION IN PREVIOUS SPINAL FUSION, CENTRAL LUMBAR STENOSIS AND PERSISTENT SPINAL PAIN SYNDROME (TYPE 2)

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Background: Spinal cord stimulation (SCS) is an established technique for managing chronic pain in patients with complex spinal conditions. We present a case of a patient with Persistent Spinal Pain Syndrome (PSPS) (Type 2), as newly recommended by the International Association for the Study of Pain (IASP), with prior spinal fusion and central spinal stenosis, who was successfully treated with SCS.

Case Presentation: A 68-year-old woman with a history of spinal fusion surgery (O3 - L1 vertebrae) 6 years ago, developed central spinal stenosis at the O2 intervertebral space 3 years ago. Despite titrated multimodal analgesic regimens, her symptoms remained refractory. Due to multiple comorbidities, the patient was reluctant to undergo further surgical interventions. A trial of spinal cord stimulation was proposed and conducted with the patient reporting significant pain relief and improved quality of life.

Methods: Following a successful trial period, a permanent SCS device was implanted. The patient was monitored for improvements for six months in pain levels, mobility, and overall satisfaction through standardized pain assessment scales and quality of life questionnaires.

Results: The patient experienced substantial pain relief and functional improvement without the need for additional surgery. The permanent SCS offered high patient satisfaction score, with notable improvements in daily activities.

Conclusion: Spinal cord stimulation provides an effective, minimally invasive alternative for pain management in patients with previous extensive spinal surgeries and spinal stenosis, who are unable or unwilling to undergo additional surgical procedures.

ORAL PRESENTATIONS ABSTRACTS

OP81

RADIOFREQUENCY NEUROLYSIS IN CHRONIC KNEE OSTEOARTHRITIS: APPLICATION AND CLINICAL OUTCOMES IN A REGIONAL HOSPITAL

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Objectives: Radiofrequency (RF) neurolysis is a minimally invasive treatment with a clear mechanism of action that has been used in numerous patients for the management of chronic pain. The aim of this study is to present our two-year experience with RF treatments in degenerative knee osteoarthritis.

Methods: The study included 52 patients, 36 women and 16 men, aged between 56 and 91 years, all diagnosed with end-stage osteoarthritis. Patient selection criteria were: prolonged wait times for surgical intervention, refusal of surgical treatment, and a significant medical history involving three or more comorbidities. Patients underwent thermal neurolysis of the superolateral, superomedial, and inferomedial genicular nerves under fluoroscopic guidance. Thermal neurolysis was applied for 3 minutes per nerve at 80°C, followed by recording changes in pain levels using the Numeric Rating Scale (NRS, 0–10) and functional scores (stiffness scale 0–20). Patients were evaluated over a short period (four months) using the NRS pain score (0–10) and stiffness score (0–20).

Results: The average NRS pain scores decreased by 3 points, and stiffness scores decreased by an average of 4 points, with a corresponding reduction in the need for analgesic medication. Forty-six out of 52 patients reported a significant reduction in nighttime pain, and no complications such as bruising, edema, inflammation, or erythema were reported. Additionally, 46 out of 52 patients indicated they would choose this method again.

Conclusion: In conclusion, RF neurolysis is an effective and safe method for managing chronic osteoarthritic pain in selected patients, with the advantage of easy repeatability and satisfying results.

ORAL PRESENTATIONS ABSTRACTS

OP82

COMPARING EFFECTIVENESS OF IMPLANTING PERIPHERAL NEUROSTIMULATOR ELECTRODES FOR LOW BACK PAIN WITH AND WITHOUT GUIDANCE

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Objectives: Peripheral Nerve Field Stimulation (PNFS) is a known neuromodulatory method for treating chronic low back pain. The technique relies on implanting subcutaneous electrodes to create an electric field that affects the small nerve fibers at the pain area. The electrodes can be implanted with and without a guidance system, like fluoroscopy or ultrasound. In this study we compare the results between groups that were implanted with fluoroscopy, ultrasound, combined fluoroscopy and ultrasound and without guidance.

Methods: 40 patients (14 males, 26 females age 32-85) were randomized in 4 groups for purpose of implantation, 1. without guidance, 2. under fluoroscopy, 3. under ultrasound and 4. under combined fluoroscopy and ultrasound. The patients were evaluated about efficacy, loss of efficacy, discomfort or any other unpleasant sensation and reimplantation of electrodes.

Results: VAS and Quality of Life improvement was about 70% in 6 months in all groups without any statistical difference. In group 1 40% reported discomfort or loss of efficacy, 20% in groups 2 and 3 and 0 in group 4. In the 3 groups that patients were dissatisfied the repositioning of the electrodes was decided after multiple failures in programming to provide adequate pain relief. After correction, which was performed with the combined technique, only 2 patients, 1 from group 1 and 1 from group 3 were still not satisfied and discontinued the therapy.

Conclusions: Although there are not significant differences in the efficacy, implanting subcutaneous peripheral electrodes under combined ultrasound and fluoroscopy guidance can minimize the need for reoperation and correction of the electrodes.

ORAL PRESENTATIONS ABSTRACTS

OP83

CRYOANALGESIA AND OPIOID CONSUMPTION ON POSTOPERATIVE PAIN IN THORACIC SURGERY

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The optimal approach to pain management after thoracic surgery remains poorly defined. The purpose of this study was to examine the association between intercostal nerve cryoanalgesia and postoperative opioid analgesic requirements.

Methods: We conducted a single center retrospective review of 30 patients who underwent open pulmonary lobectomy. The patients received intercostal nerve cryoanalgesia (group I) n= 15 were compared with standard opioid analgesia (groupII) n=15.

All patients were subjected to general anaesthesia with intubation with a double lumen tube and mechanical ventilation. After induction of anaesthesia fentanyl 2-4mcg/kg, propofol 3-5mg/kg, ketamine 0.5mg/kg, sevoflurane 1-1.5mac were administered and analgesia was maintained with fentanyl and remifentanyl as proper.

Approximately 30 min before the end of the procedure morphine 100mcg/kg was administered to the two groups.

In the postoperative period morphine was administered in regular intervals: boluses max 0.1mg/kg every 4 hours, if visual analogue pain scale score (VAS) >5.

Patients receiving cryoanalgesia intraoperatively were treated with the cryoflex probe at 70°C for 2 minutes at 5 intercostal spaces encompassing the location of the surgical incision. Complications of the cryolysis procedure were defined as: neuropathetic specific pain described as “burning” sensations in the operated area. Adverse reactions due to opioid were: nausea, pruritus, breathing difficulties, dizziness, apnoea, bradycardia, and decrease in SpO₂<90%. Evaluation of acute pain intensity in the first day after surgery, measurement every 4 hours for 24 h VAS (0-10), the total dose of morphine, the duration of iv opioid use – up to which day after surgery, side effects of opioids, were recorded.

Results: The Wilcoxon rank –sum test demonstrated significantly less inpatient opioid use for cryoanalgesia Group I, (50mg versus 150mg Group II, p<0.001), cryoanalgesia lowered daily VAS score (4 to 7 Group II p<0.001), morphine use up to the 5th day to Group I / 8th day Group II, no side effects of cryolysis were recorded and opioid side effects were at 15% Gr.I / 19% Gr.II.

Discussion: Cryoanalgesia involves freezing nerves, causing reversible neurolysis of the selected intercostal nerves, which disrupt their ability to transmit pain signals. The intensity and duration of the pain relief are increased depending on the degree of neurolysis, which lasts to six-ten months.

Conclusions: Our results suggest that intraoperative cryoanalgesia during thoracic surgery is associated with lower inpatient opioid requirements and postoperative pain. Favorable trends for improved pulmonary function and reduced opioid use are benefits not easily achieved using other strategies.

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OP84

OUR EXPERIENCE WITH INTRATHECAL MORPHINE ADMINISTRATION IN TOTAL KNEE ARTHROPLASTIES FOR POSTOPERATIVE ANALGESIA

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Aim: To evaluate the efficacy and safety of intrathecal morphine administration for postoperative analgesia in patients undergoing total knee arthroplasty.

Material and Method: We studied 35 patients, 30 women and 5 men, aged 59–85 years, ASA II and III. Spinal anesthesia was performed at the L3-L4 interspace with 16.5–18 mg ropivacaine and morphine at a dose of 0.08–0.1 mg in a volume of 3.2–3.4 ml. The surgery lasted 90 ± 15 minutes and was performed without the use of a tourniquet or drainage. A 1g intra-articular infusion of tranexamic acid was administered before the end of the procedure. Blood pressure was maintained, when necessary, with a continuous infusion of norepinephrine. Antiemetic treatment included preoperative metoclopramide 10 mg, dexamethasone 8 mg at induction, and 4 mg ondansetron IV. Patients were discharged from the PACU once Alderete criteria were met. Instructions for monitoring and management of potential complications were provided according to a specific protocol.

Postoperative parameters studied included: SpO₂, pulse rate, blood pressure, respiratory rate, apnea, sedation using the Ramsay scale, nausea and vomiting, pruritus, pain at rest and during movement using a VAS score (0–10), and patient satisfaction. These were initially assessed in the PACU and subsequently every 2 hours for the first 12 hours and every 4 hours for the next 12 hours (i.e., the first 24 hours). The time when analgesia was first needed was recorded.

Results: The results across all parameters studied in the patients are as follows:

Pain on the VAS scale was 0 in 34 patients and 4–5 in one patient at rest during the first 15 hours. Afterwards, until 22 hours, pain was 2–3 in 34 patients and more than 5 in one patient. Pain during physiotherapy, usually done between 15–18 hours post-op, was 4–5 in all patients. On the second postoperative day, pain was 4–6 on the VAS scale at rest and during movement. Analgesia was administered at 17 hours in 6 patients and in the rest during the second 24-hour period. No patient experienced pruritus, 2 had nausea, and 6 had vomiting. One patient who vomited also presented with delirium. No decrease in respiratory rate below 8, apnea, or sedation was observed. Patient satisfaction ranged from 7 to 10.

Conclusion: Intrathecal administration of morphine ensures high-quality postoperative analgesia in total knee arthroplasty procedures, though a monitoring protocol and preventive management of potential complications are required.

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ORAL PRESENTATIONS ABSTRACTS

ORAL PRESENTATIONS IX

OP85

HOW TO SET UP A TRANSITIONAL PAIN CLINIC. TIPS, TRICKS, HURDLES AND FIRST RESULTS

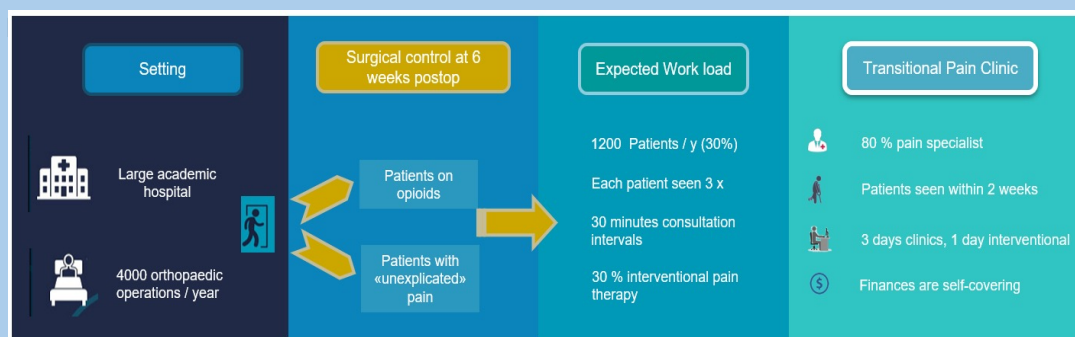
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Background: Background and Objectives: Prolonged postoperative pain (PPP) is a frequent complication following surgery. It has major socio-economic implications and carries the risk of opioid dependence and transition to chronic pain. Offering early access to specialist care has shown to mitigate both. We describe the setup of the first transitional pain clinic (TPC) in Switzerland and report first results.

Materials and Methods: In June 2021, we analysed retrospectively opioid prescription at discharge and postoperative opioid consumption within our orthopaedic patients. The entry criteria for TPC was set as opioid consumption and/or pain at 6 weeks postoperative. A prospective data base collects admission rates, frequency and proposed treatments and pain/opioid consumption at 6 months.

Results: In June 2021, 20.6 % were still on opioids at 6 weeks postoperative with 39.7% missing data. The estimation of 30% in need of TPC and assuming 3 consultations/patient resulted in the prospect of a 80% position to cover 3600 consultations/y. With estimated 30% interventional treatments, this project promised being self-financing and received immediate acceptance from governance.



Illimited postoperative opioid prescription was reduced by 41.7% and at the 6-week control, 7.7% were still on opioids (-62.6 %). The TPC saw 95 patients in total 250 consultations, with 51.1% presenting continued opioid use.

ORAL PRESENTATIONS ABSTRACTS

	June 2021		Nov-Jan 24/25		p-value
Patients with orthopedic surgery	301		1018		
Patients included	276	91,7%	993	97,5%	ns
On opioids at 6 weeks post surgery	54	20,6%	57	7,7%	<0.0001
not assessed/unknown	104	39,7%	198	26,6%	<0.0001
Seen in TPC			34	59,6%	NA
on opioids			47	51,1%	NA
adressed by surgeon			13	22,8%	NA
Patients seen for older postoperative pain			45	48,9%	NA
Interventional treatment approach	30% (expect.)		31	33,7%	ns

Conclusions: Early access to specialist pain care for PPP is a needed to bridge a gap in the perioperative care pathway. The information spread might be the reason for the observed reduction in postoperative opioid use. Address rate was lower than expected and information on non-opioid pain treatments should be strengthened to bring change to the paradigm of the “normal” postoperative pain trajectory. While the number of consultations per patient and the rate of interventional therapy confirmed our estimations, the thus underused resources allowed for the earlier-as-planned inclusion of other surgical specialities without budget increase.

ORAL PRESENTATIONS ABSTRACTS

OP86

EVALUATION OF INFLAMMATORY BIOMARKERS IN PREOPERATIVE NUTRITIONAL ASSESSMENT AND THEIR RELATIONSHIP WITH POSTOPERATIVE PAIN: A PROSPECTIVE CLINICAL STUDY

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Objectives: Malnutrition is a significant risk factor for poor postoperative recovery. The Anesthesiologist plays a pivotal role throughout the perioperative and postoperative period. However, the literature remains limited regarding specific biomarkers used to assess preoperative nutritional status and their predictive value for the development of acute and chronic postoperative pain. The aim of this prospective randomized study is to evaluate preoperative nutritional status using inflammatory biomarkers and investigate their association with both acute and chronic postoperative pain.

Methods: A total of 81 surgical patients aged ≥ 70 years who underwent either elective or emergency procedures under anesthesia were enrolled. Preoperative assessment included measurement of inflammatory and nutritional biomarkers such as red cell distribution width (RDW), C-reactive protein (CRP), bilirubin, albumin, calcium, and ferritin. Pain levels were recorded using the Visual Analog Scale (VAS) preoperatively, postoperatively (for acute pain), at 30 days (persistent postoperative pain), and at six months (chronic pain). Statistical analysis was then performed.

Results: No statistically significant association was found between any biomarker and acute postoperative pain. However, CRP and calcium showed a significant correlation with pain at 30 days postoperatively. Chronic postoperative pain at six months was significantly associated with RDW and ferritin levels. Albumin demonstrated a strong negative correlation with pain at 30 days and with chronic pain ($p = -0.63$ and $p = -0.71$, respectively).

Conclusions: Although further investigation with the help of the analytical methods for nutritional biomarkers is necessary, the findings suggest that malnutrition is a critical prognostic factor for the development of acute postoperative pain and its transition to chronic pain.

ORAL PRESENTATIONS ABSTRACTS

OP87

ASSESSMENT OF NUTRITIONAL TESTS IN THE PREOPERATIVE EVALUATION OF NUTRITIONAL STATUS AND THEIR ASSOCIATION WITH POSTOPERATIVE PAIN: A PROSPECTIVE CLINICAL STUDY

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Objectives: Malnutrition represents a major risk factor for adverse postoperative outcomes. Nevertheless, current literature provides limited evidence on the utility of available nutritional assessment tools in the preoperative setting and their potential to predict the onset of acute and chronic postoperative pain. This prospective randomized study aims to assess preoperative nutritional status using established nutritional tests and explore their association with both acute and chronic postoperative pain.

Methods: A total of 81 surgical patients aged ≥ 70 years who underwent either elective or emergency procedures under anesthesia were enrolled. Preoperative assessment included measurement of established nutritional tests: MNA-SF and mNUTRIC. Pain levels were recorded using the Visual Analog Scale (VAS) preoperatively, postoperatively (for acute pain), at 30 days (persistent postoperative pain), and at six months (chronic pain). Statistical analysis was then performed.

Results: MNA-SF showed a negative coefficient, suggesting that preoperative malnutrition is linked to greater acute postoperative pain, though this was not statistically significant. mNUTRIC had a larger effect size but also lacked statistical support. At 30 days, MNA-SF was the strongest predictor, with a large negative coefficient indicating better nutritional status significantly reduces short-term pain and complications. Similarly, mNUTRIC showed a large positive coefficient, supporting its role as a risk factor related to nutritional and inflammatory deficits. For chronic pain, nutrition- and inflammation-related variables were most clinically relevant. MNA-SF again had a negative coefficient, implying better nutrition lowers the risk of persistent pain. In contrast, mNUTRIC remained a strong positive predictor, highlighting prolonged recovery risks linked to nutritional and inflammatory stress.

Conclusions: Although further investigation with the help of analytical methods for nutritional biomarkers is necessary, the findings suggest that malnutrition is a critical prognostic factor for the development of acute postoperative pain and its transition to chronic pain.

ORAL PRESENTATIONS ABSTRACTS

OP88

COMPARATIVE STUDY BETWEEN MORPHINE AND DEXMEDETOMIDINE FOR POSTOPERATIVE ANALGESIA IN PATIENTS UNDERGOING CANCER SURGERIES**Wael Ahmed***Anesthesia consultant King Abdallah Medical City, Saudi Arabia*

Background: Dexmedetomidine is a selective α_2 adrenoceptor (α_2 -AR) agonist with evidence of an increased ratio of α_2 -to- α_1 activity. Dexmedetomidine produces analgesia, minimizes opioid-induced muscle rigidity, lessens postoperative shivering, causes minimal respiratory depression, and has hemodynamic stabilizing effects. Dexmedetomidine, when used as an adjunct, can reduce postoperative morphine consumption in various surgical settings using various routes mainly intravenous.

Methods: Eighty four cancer patients scheduled for cancer surgeries under general anesthesia were randomized blindly into three parallel groups in this prospective study: Low dose dexmedetomidine group (group A, n=28) received 30 minutes before the anticipated end of surgery a loading dose of dexmedetomidine 1 $\mu\text{g/kg}$ in 100 mL of normal saline over 20 minutes then an infusion of 0.5 $\mu\text{g/kg/hour}$ for 48 hours, high dose dexmedetomidine group (group B, n=28) received 30 minutes before the anticipated end of surgery a loading dose of dexmedetomidine 1 $\mu\text{g/kg}$ in 100 mL of normal saline over 20 minutes then an infusion of 1 $\mu\text{g/kg/hour}$ for 48 hours, morphine group (group C, n=28) received immediately postoperative IV morphine as 0.1 mg/kg as bolus dose and then continuous IV infusion at rate of 0.02 mg/kg/hour for 48 hours. Postoperative analgesia was assessed using visual analogue score (VAS) recorded 30 min after surgery and then every 4 hours for 48 hours. Heart rate and non-invasive arterial blood pressure were measured at 30 min, and then every four hours postoperatively for 48 hours, and their mean was compared with the intraoperative one and also was compared between all groups.

Results: Postoperatively pain score (VAS) from 30 minutes till 12 hours and from 24 hours till 36 were significantly lower in group C than group A and B. However VAS at 16 hours, 20 hours and from 40 hours till 48 hours postoperatively wasn't statistically significant among the three groups. During the whole postoperative 48 hours the heart rate was significantly lower in group B compared with group A and C, it also was significantly lower than the intraoperative value from 4 hours postoperatively till the end of the study. However heart rate was lower in group A than group C during 48 hours postoperatively but not statistically significant. Meanwhile it was significantly lower than the intraoperative one from 12 hours till 48 hours postoperatively in group A. During the whole 48 hours postoperatively, mean arterial blood pressure (MABP) was significantly lower in group B compared to the intraoperative value and values in group A and C. In group A, MABP wasn't significantly lower compared to group B and meanwhile it was significantly lower than the intraoperative value during 12 hours till 20 hours postoperatively.

Conclusion: The results of this study proved that morphine has better postoperative analgesia than dexmedetomidine (low and high dose) during the first 36 hours postoperatively apart from 16 and 20 hours postoperatively; there is no difference in analgesia between the two drugs. However low dexmedetomidine is better than high dose dexmedetomidine as it has less adverse effects.

ORAL PRESENTATIONS ABSTRACTS

OP89

SILENCING THE STRESS: OPIOID-FREE INDUCTION MODULATES NOCICEPTIVE AND HAEMODYNAMIC RESPONSE TO LARYNGOSCOPY AND INTUBATION

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Objectives: Laryngoscopy and endotracheal intubation can lead to significant haemodynamic perturbation and a marked nociceptive response. Opioids have traditionally been used by anaesthetists to address this problem. This study aimed to assess the impact of opioid-free induction on nociceptive and haemodynamic response parameters during laryngoscopy and intubation.

Methods: Seventy ASA I-II patients undergoing elective surgery were enrolled in this randomized, controlled, double-blind, prospective study. Participants were randomized to two groups, depending on induction agents: OFI (opioid free induction) group received a combination of dexmedetomidine, ketamine and lidocaine prior to laryngoscopy and intubation and OBI (opioid-based induction) group received fentanyl. Nociceptive and haemodynamic parameters were assessed during a 5-minute period post laryngoscopy and intubation.

Results: All four nociception-related metrics derived from the NOL index consistently demonstrated attenuated nociceptive responses in the OFI group versus OBI, with statistically significant differences. The OFI group exhibited lower median NOL values ($p=0.027$) in general, as well as lower medians of NOL values greater than the 25 threshold throughout the examined period ($p=0.00052$). Regarding haemodynamics, although heart rate increased significantly in both groups post-intubation ($p<0.001$), the elevation was more prolonged in OBI group. Mean arterial pressure remained stable in the OFI group during the study observation period, while in OBI group it demonstrated significant instability with immediate post-intubation increases followed by later decreases when compared to pre-intubation values. Clinically significant hypotension ($SAP < 70\%$ baseline) occurred more frequently in OBI than OFI (48.5% vs 17%, $p=0.011$).

Conclusions: This study highlights that opioid-free induction attenuates nociceptive response and mitigates haemodynamic instability associated with laryngoscopy and intubation. Objective patient monitoring, such as the NOL index, further supports the clinical benefits of opioid-sparing techniques.

ORAL PRESENTATIONS ABSTRACTS

OP90

PAIN ASSESSMENT METHODS FOR INFANTS AND YOUNG CHILDREN AFTER CARDIAC SURGERY: A SCOPING REVIEW

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Background: The assessment of pain in children after cardiac surgery has always been challenging due to several reasons among which the accuracy of the existing pain scales, health professionals lack of knowledge concerning adequate pain assessment and management in children and, the lack of insight concerning pain in children, stand as the most common stated in literature. The aim of this scoping review is to present the available methods used in current clinical practice to assess pain in infants and young children after cardiac surgery.

Methods: The scoping review was performed using PRISMA for Scoping Reviews (PRISMA-ScR) guidelines. We searched EMBASE, Web of Science, MEDLINE, and CINAHL from January 1st 2019 to May 31st 2025 to retrieve eligible systematic reviews and surveys. Our primary outcome was to describe the pain assessment scales/tools used in clinical practice with a special focus on their efficiency. Data from the included systematic reviews or surveys was summarized qualitatively.

Results: The initial search led to 135 articles, after the implementation of inclusion /exclusion criteria and the removal of duplications, 88 abstracts were evaluated and after the full text evaluation 22 articles were selected. There is a variety of pain assessment scales, self-report, behavioural and physiological scales that have been used in children after cardiac surgery. There is evidence that the Cardiac Analgesic Assessment Scale (CAAS) is a reliable postoperative pain tool for sedated and intubated children after cardiac surgery. The COMFORT-B and FLACC scales seem to be reliable tools for this population after the sedation period, but research data indicate that the cutoff points differ among children from different origins. Self-reports are acknowledged as the best measurement tools. Children, even from the fourth year of age, can report pain using scales such as Faces Pain Scale or Oucher. Limitations exist depending on the cognitive and emotional maturity of the child. The use of visual analogue scale or numeric rating scale, in older children and adolescents after postoperative tracheal extubation is also supported. Innovations in both assessment, therapy and machine learning-based interventions, currently guide effective pain management in clinical practice for both infants and young children.

Conclusion: There is no clear answer about the best pain assessment method for infants and young children after cardiac surgery. Age-appropriate pain assessment tools continue to be evaluated, validated, and improved. An individualized pain management plan in accordance to the hemodynamic stability of each child is strongly recommended.

ORAL PRESENTATIONS ABSTRACTS

OP91

A RANDOMIZED CONTROLLED TRIAL COMPARING COMBOGESIC® (PARACETAMOL/IBUPROFEN) VERSUS PARACETAMOL/DEXKETOPROFEN FOR POSTOPERATIVE ANALGESIA IN TRANSURETHRAL SURGERY

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Introduction: Effective postoperative analgesia in transurethral surgery is essential for patient comfort and early recovery. This randomized controlled trial aimed to compare the efficacy and safety of Combogesic® (paracetamol 1 g + ibuprofen 300 mg) with the combination of paracetamol 1 g and dextketoprofen 50 mg for the management of moderate postoperative pain in patients undergoing TUR-P or TUR-BT.

Methods: A total of 120 patients (ASA I-III) scheduled for transurethral urological surgery were randomized into two groups. Group A received a single intravenous dose of Combogesic® intraoperatively (1.5 ml/kg over 15 minutes), while Group B received intravenous paracetamol 1 g plus dextketoprofen 50 mg. Pain intensity was assessed using the Visual Analog Scale (VAS) at 0, 1, 6, and 12 hours postoperatively. Secondary outcomes included the need for rescue analgesia, catheter tolerance, and adverse effects. All patients were managed under standardized anesthesia protocols, and additional analgesia (morphine or tramadol) was provided if VAS ≥ 4 .

Results: There was no statistically significant difference in pain scores between the two groups at any time point ($p > 0.05$), indicating comparable analgesic efficacy. However, the Combogesic® group demonstrated significantly better tolerance to the urinary catheter ($p < 0.01$) and a lower requirement for rescue analgesia during the first 12 postoperative hours ($p < 0.05$). The incidence of adverse effects (gastrointestinal, renal, hepatic) was similar in both groups, with no significant safety concerns reported.

Conclusions: Both analgesic regimens provided effective pain control following transurethral surgery. However, Combogesic® was associated with improved patient comfort in terms of catheter tolerance and reduced need for additional analgesics, without increasing the rate of side effects. These findings suggest that Combogesic® may be a favorable option for multimodal perioperative pain management in urological procedures.

ORAL PRESENTATIONS ABSTRACTS

OP92

MULTIMODAL PREEMPTIVE ANALGESIA FOR LAPAROSCOPIC INGUINAL HERNIA REPAIR

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Aim of the study was the evaluation of administration of a combination of different analgesics' categories for perioperative analgesia in laparoscopic inguinal hernia repair, targeting to opioid sparing.

Patients-Methods: After granted permission by hospital's Ethical Committee, and patients' informed consent, in a perspective clinical trial 28 patients (20 male, 8 female), aged 22-64, scheduled for laparoscopic inguinal hernia repair were studied. Exclusion criteria were age > 75 years old, patients with renal, hepatic, cardiovascular disease, and peptic ulcer. Anaesthesia induction and preservation protocol was common in all patients (fentanyl 100mcg, propofol 2-2.5mg/kg, rocuronium bromide 1mg/kg and desflurane 5-7% in O₂/Air mixture so that MAC = 1). During induction a combination of paracetamol 1gr, parecoxib 40mg, lidocaine 1.5mg/kg, magnesium sulphate 2.5 gr, dexamethasone 8mg, and clonidine 1.5mcg/kg was administered at least 15' before surgical incision. Intraoperatively patients vital signs, other possible pain indicators (lacrimation, lack of myosis), and need for extra analgesics were recorded. Postoperatively, VAS scores and need for extra analgesia were also recorded.

Results: None of the patients demonstrated signs of pain (hypertension, tachycardia, or lacrimation intraoperatively, while all of them had satisfactory myosis and none of them needed extra analgesic. Postoperatively, during their stay in PACU, VAS scores were 0-1. None of them needed rescue analgesia. During their hospital stay, pain was efficiently managed with paracetamol 1gr x 3 and parecoxib 40mg x 1.

Conclusions: Timely administration of different acting analgesics' combination in laparoscopic inguinal hernia repair procedures, minimizes short and long acting opioid administration, providing excellent analgesic effect without opioids' common side effects. Further studies are needed to support these findings.

ORAL PRESENTATIONS ABSTRACTS

OP93

CONCOMITANT USE OF DEXMETEDOMIDINE AND REMIFENTANIL FOR PERIOPERATIVE ANALGESIA AFTER OPEN HEART SURGERY VIA MEDIAN STERNOTOMY. SAFETY PROFILE FOR ASA IV PATIENTS. A PILOT STUDY

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Introduction: Analgesia after cardiac surgery is of major importance and can be challenging. Median sternotomy involves an extensive incision and alongside with the presence of chest drains is related with at least moderate postoperative pain. Dexmedetomidine is a newer α_2 -agonist that is recommended for analgesia by the latest ERAS guidelines in cardiac surgery. Remifentanyl is known to precipitate bradycardia via sympathetic downregulation. However, bradycardia and hypotension are recognized complications of the drug which can complicate the management of this specific cohort of patients with heart disease. The aim of our pilot study is to investigate the safety of the agent by recording any episodes of haemodynamic compromise

Methods: Thirty two patients were included all of them ASA 4. A standard dose of continuous infusion of dexmedetomidine 0,2-0,5 mcg/kg/h without loading dose and remifentanyl 1-3 mg/ml TCI infusion were given to all patients intraoperatively and also after the transfer to cardiothoracic intensive care unit. Advanced haemodynamic monitoring with hypotension predictive index was attached to all patients in the operating room. Regular paracetamol and rescue dose tramadol were given if required post extubation targeting VAS< 3-4. Haemodynamic support was provided with the administration of noradrenaline and adrenaline infusions when necessary with a MAP target > 65 mmHg. Haemodynamic values and VAS scores were recorded as well as side effects.

Results: HPI alarm was not related with bradycardia episodes and on the other hand hypotension was not solely related with the administration of the specific agents. All patients demonstrated stability in terms of heart rate and heart rhythm all through the procedure. Hypotension was related with bleeding, coagulopathy and SIRS after cardiopulmonary CPB and in none of the cases it was attributed to the pharmaceutical agents used for analgesia.

Conclusion: Combination of dexmedetomidine and remifentanyl is safe with good postoperative analgesic efficacy and was not related to haemodynamic compromise especially bradycardia.

ORAL PRESENTATIONS ABSTRACTS

OP94

KETAMINE FOR INTRAOPERATIVE ANALGESIA SEDATION AND FOR PERICARDIAL EFFUSION EVACUATION VIA SUBXIPHOID INCISION. A CASE SERIES

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Introduction: Pericardial effusion is a recognized complication after cardiac surgery. Reopening via median sternotomy can be avoided when drainage can be performed with a minimal incision under the xiphoid process. Conscious sedation and multimodal analgesia based on ketamine offers optimal conditions for this condition without the need of converting to general anaesthesia.

Method: After obtaining written consent we included 8 patients who underwent a procedure for removal of pericardial effusion. Full monitoring was placed focused on end-tidal capnography and pulse oximetry as well as invasive haemodynamic monitoring for tight blood pressure control because of the nature of the procedure that can be associated with rapid haemodynamic variations. All patients received ketamine, fentanyl 25-50 mcg, paracetamol 1gr in advance preemptively. NSAIDS were given only in the absence of coronary disease and normal renal function.

Results: All patients tolerated the procedure very well and achieved adequate analgesia conditions for this procedure. None of them required conversion to general anaesthesia. Level of consciousness was for immediate discharge to straight back to the cardiosurgical ward. All patients reported amnesia and had very low VAS scores on discharge. Patient satisfaction score was also very low.

Conclusion: Ketamine as part of multimodal analgesia provides excellent conditions for conscious sedation with high efficacy in terms of postoperative analgesia cover for the above procedure.

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