

MEETING ABSTRACTS

Abstracts of Roma Pain Days 2023

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The third edition of the Roma Pain Days (#RPD23) has shown the great interest existing on pain medicine and on education in this difficult, challenging part of the every day clinical practice. As anyone may observe, the scientific program has expanded its interests. This is also the case with the number of abstract submitted. It is significantly increased, compared to last year.

The #RPD23 is still an “hybrid” congress, and again the Scientific Committee has tried to collect and diffuse much more the results of the many, many researchers willing to present their results to the large public. Also this year the abstracts are published on *Signa Vitae*, an indexed open access journal (<https://www.signavitae.com>). All the accepted abstracts will be published immediately before the congress visible and downloadable in the website. *Signa Vitae* is a growing and thrilling journal whose impact in the scientific world interested in Anesthesiology, Emergency, Intensive Care, and Pain Medicine is already well established. The Scientific Committee of the #RPD23 thank the General Management of the journal for their kindness and generosity. We are more than sure that this will be of a mutual benefit for the researchers and the journal’s visibility. *Ad maiora* for a future, increasing cooperation in favor of the science diffusion, and of the Pain Medicine.

Roma Pain Days 2023 Abstract Reviewers

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01. The efficacy of intrathecal dexmedetomidine vs. fentanyl on post-operative pain: a retrospective studyLou’i Al-Husinat^{1,*}, Sarah Al Sharie², Mohammad Araydah², Lana Talafha², Abbas Baydoun³, Domenico Gammaldi⁴, Giustino Varrassi⁵¹Department of Clinical Medical Sciences, Faculty of Medicine, Yarmouk University, Irbid, Jordan; ²Faculty of Medicine, Yarmouk University, Irbid, Jordan; ³Department of Anesthesia, Abdulhadi general hospital, Amman, Jordan; ⁴Hospital San Giuseppe Moscati of Avellino, Avellino, Italy; ⁵Paolo Procacci Foundation, 00193 Rome, Italy.*Corresponding Author: Lou’i Al-Husinat (loui.husinat@yu.edu.jo)

Background and aims: For many surgical procedures, spinal anesthesia is a reliable and efficient anesthetic approach. Numerous drugs have been reported to be administered to intrathecal local anesthetics as adjuvants to increase the efficacy of spinal anesthesia. There is little evidence of the effect of intrathecal dexmedetomidine on pain scores and the consumption of analgesia postoperatively.

Methods: After obtaining ethical approval, demographical and clinical data of patients who underwent surgical procedures under spinal anesthesia with intrathecal dexmedetomidine or fentanyl was collected and analyzed.

Results: Out of 150 patients, 95 (61.33%) were males. The median age of the population was 56-year-old. Most of the study population were overweight (50%). 75 patients received intrathecal fentanyl (Group F) and 75 received intrathecal dexmedetomidine (Group D). The median VAS score was significantly higher in patients of group (F) when compared to those in group (D) (4 vs. 1, $p = 0.000$). The number of patients who needed post-operative analgesia was significantly higher in group (F) than in group (D) (67 vs. 20, $p = 0.000$).

36. Characteristics and psychological impact of persistent pain after ankle sprain

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Background and aim: Chronic pain is a common complication of ankle sprain. It can result in functional and psychological distress. This study aims to determine the characteristics of persistent pain related to an ankle sprain and its psychological impact.

Methods: We conducted a prospective, monocentric study over a period of 6 months. We included the patients referred to the physical medicine and rehabilitation outpatient clinic for chronic pain lasting over 2 months after ankle sprain. Screening for anxiety and depression was conducted using the hospital anxiety and depression scale (HAD).

Results: 25 patients were included. Mean age was 33.52. Sex ratio was 2.6. The mean pain intensity measured by the VAS was 5 (± 1.18). More than half of the patients reported severe to unbearable pain. It was associated with a feeling of instability in 30.8%. HAD showed considerable symptoms of anxiety in 16% and depression in 24% of the patients. A significant correlation was found between pain intensity and symptoms of anxiety.

Conclusions: Pain is a significant complication of ankle sprain. Screening of psychological symptoms must be part of the follow-up.

37. Non pharmacological management of low back pain in rehabilitation settings

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Introduction: Low back pain (LBP) is a major public health issue in the world. Pharmacological treatment remains a Gold Standard therapy for LBP but it is still not satisfactory, considering the potential side effects of medication. Clinicians have been learning towards non pharmacological therapies to manage LBP.

This study aimed to report the experience of rehabilitation department and list the non pharmacological tools used to treat LBP.

Methods: A prospective descriptive study was conducted. Patients with LBP were included. All patients had physical therapy. New non pharmacological interventions were practiced. The primary outcome was the reduction in pain intensity using the VAS.

Results: The main complaint of the patients with chronic low back pain was pain in the buttock and lumbosacral region of the spine. Eight patients included received radial extracorporeal shockwave therapy (RESWT). Therefore, the treated regions were mainly the quadratus lumborum muscle, the gluteus maximus muscle and the piriform muscle. No adverse effect was noticed and mean VAS passed from 7.3 to 3.5/10.

Mesotherapy was prescribed in six patients complaining of LBP. Systematized point mesotherapy and intra-epidermal techniques were used. Mean VAS passed from 6.9 to 2.9 after 5 sessions of mesotherapy.

Three patients received Dry needling (DN). It involves a minimally invasive procedure in which an acupuncture needle is inserted directly into myofascial trigger points. Among three patients receiving DN, two patients reported significant pain relief.

Conclusion: A variety of non-pharmacological interventions have been tested to treat LBP and showed efficiency. Future comparative studies are needed to confirm this efficacy.

38. Pulsed radiofrequency (PRF) and platelet rich plasma (PRP) in degenerative joint arthritis: two case reports

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We report 2 cases of OA treated with PRF and autologous PRP.

Case 1. A 69-year-old patient with severe pain (VAS 8/10) in the left knee. On examination, a limping gait was observed. Tenderness around the left knee joint, moderate swelling, increased pain on weight-bearing, and decreased ROM were observed. X-ray was normal. MRI showed tricompartmental gonarthrosis with osteophytotic reaction on the left. The patient reported the use of NSAIDs, tramadol, vitamin D and calcium supplements.

Case 2. A 78-year-old patient with severe pain (VAS 7/10) in the right knee. On examination, a limping gait was observed. Tenderness around the right knee joint, moderate swelling, increased pain on weight-bearing, and decreased ROM were observed. X-ray showed marked tricompartmental gonarthrosis with slightly greater changes in the medial femorotibial compartment. The patient reported the use of NSAIDs, vitamin D and calcium supplements.

After disinfection, a 22 gauge Quincke needle was inserted into the knee joint under ultrasound guidance. After proper placement, the stylet was withdrawn and the RF probe was inserted. PRF was activated for 15 minutes at 42 °C and a pulse span of 20 ms, at 2 Hz. Then 20 mL of intra-articular PRP was injected.

At baseline VAS was 8 and 7, respectively. At 1 week, pain was 3/10. At 4 weeks, patients had VAS 2/10 and were able to perform all activities. At 12 weeks, patients had VAS 1–2/10 and their ROM was free without pain. No AEs were reported.

39. Multimodal management of perioperative pain

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Background: The goals of perioperative pain management are to relieve suffering, achieve early mobilization after surgery, reduce length of hospital stay and achieve patient satisfaction. Pain control regimens must take into account medical, psychological, and physical condition; age; level of fear or anxiety; surgical procedure; personal preference; and response to agents given. The optimal strategy for perioperative pain control consists of multimodal therapy to minimize the need for opioids. The overprescribing of opioids has reached a critical level worldwide, and surgery may be the trigger for long-term opioid use in many patients.

Aims: The aim of the study was to evaluate the incidence of postsurgical pain in patients undergoing different types of surgery at our hospital. The main objective of the study was to prove efficacy of multimodal analgesia used throughout perioperative period targeting to minimize the use of opioids.

Methods: General anesthesia vs preventive anesthesia with regional analgesic techniques in combination with drugs such as nonsteroidal anti-inflammatory drugs, paracetamol, IV lidocaine, magnesium, antidepressants, anticonvulsants and Alpha-2 receptor agonists has been used for following surgical procedures: minor outpatient surgery, extremity surgery including joint replacement, minimally invasive and major open abdominal surgery and neurosurgery. In total, the results of 402 operations were analyzed. Visual Analogue Pain Score evaluated by patients themselves has been used to evaluate efficacy of each type of anesthesia.

Results: Multimodal approach reduced postoperative pain, even replacing opioids in number of cases. As a result, postoperative opioid adjustment with related side-effects, such as somnolence, depression of brainstem control of respiratory drive, urinary retention, nausea and vomiting, flushing, tachycardia, hypotension, pruritus, and bronchospasm, constipation and ileus has been decreased. It was noted, that 70% decrease of pain has been assessed in the group of patients where multimodal approach has been used.

Conclusions: Pain control regimens should be tailored to the needs of individual patient, taking into account the patient's age, medical and physical condition, level of fear/anxiety, personal preferences, type of surgical procedure, and response. An optimal strategy for perioperative pain control consists of multimodal therapy to minimize the need for opioids.

40. Combined opioid free and regional anesthesia in bariatric surgery

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Background: Anesthesia in bariatric surgery poses unique challenges due to patient's comorbidities such as high BMI, hypertension, respiratory issues, and sleep apnea. Combined opioid-free and regional anesthesia (COFRA) is a viable alternative to opioid-based anesthesia (OBA) as it manages pre- and postoperative pain and prevents opioid-related side effects. The use of COFRA has been reported to reduce postoperative pain, recovery time, and hospital stay in laparoscopic gastroplasty procedures compared to OBA.

Aim: The aim of the study was to evaluate the effectiveness of using COFRA in patients undergoing different types of bariatric surgical procedures at our hospital.

Methods: This study was a retrospective cohort analysis of 200 patients undergoing bariatric surgery. The COFRA group (n = 100) received induction with dexmedetomidine and rocuronium, followed by dexmedetomidine TCI at 0.1 mcg/mL and sevoflurane 0.8 mac. Bilateral Tap Block was performed after induction. The OBA group (n = 100) received induction with fentanyl, propofol, and rocuronium, followed by sevoflurane. Anesthesia depth was monitored using the Bispectral Index (BIS). Acetaminophen was administered to all patients.

Results: The study analyzed the extubation time, recovery time, postoperative opioid and nonsteroidal anti-inflammatory drug (NSAID) consumption, and hospital stay. COFRA showed a shorter extubation time (10 minutes) compared to OBA (20 minutes). The postoperative opioid consumption was significantly reduced by 5% in the COFRA group, while it was 60% in the OBA group. The NSAID consumption was 20% vs. 50% in the first 24 hours.

Conclusions: COFRA demonstrated a shorter extubation time, reduced postoperative opioid consumption, reduced postoperative nausea and vomiting, lower NSAID consumption, and shorter recovery time compared to OBA. This retrospective cohort study suggests that COFRA can be a promising alternative to OBA in bariatric surgery patients. The use of COFRA has the potential to improve patient outcomes and reduce the risk of opioid-related side effects.

41. Ultrasound guided cervical selective nerve root block combined with pulsed radiofrequency

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Background and aims:

Herniated cervical disc resulting in cervical radicular pain is a worldwide burden to society. Currently, cervical transforaminal epidural injections have been traditionally performed under fluoroscopy or computed tomography guidance. US-guided cervical selective nerve root block (CSNRB) is a diagnostic and therapeutic procedure that involves placing the needle outside the neural foramen of the affected nerve root with precise application of local anesthetic and/or steroid injection.

Methods: Patients with cervical radicular pain due to single-level cervical disc herniation (CDH) confirmed by magnetic resonance imaging (MRI) were included in this study, all of whom underwent CSNRB combined with pulsed radiofrequency (PRF) from January 2022 to January 2023. Severity of pain and disability scores were assessed with Numeric Rating Scale (NRS-11) and Neck Disability Index (NDI) at baseline, 3 weeks and 3 months after treatment. Additionally, pain medication consumption (Quantitative Analgesic Questionnaire) was evaluated.

Results: A total of 28 patients with single level CDH between C5–7 under were included. Significant improvement in pain and disability scores was observed at 3rd week and 3rd month compared to baseline ($p < 0.001$). There was a significant reduction in pain medication consumption at 3 months compared with baseline ($p < 0.001$). Treatment success (at least 50% decrease in NRS-11) was achieved in 75% (21/28) of the patients.

Conclusions: US guided CSNRB combined with PRF effectively provided improvement in pain and functional disability in patients with cervical radicular pain. The procedure is a safe and effective method for patients who do not respond to conservative treatment.

42. A need for standardized ketamine protocol for cancer pain

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Background and aims: Ketamine, an N-methyl-D-aspartate receptor antagonist, is widely known as a dissociative

anesthetic and phencyclidine derivative. Recently, etamine has been utilized as an adjuvant to opioid therapy to manage refractory cancer pain, but debate is still ongoing regarding the protocols varying in patient selection, starting dose, titration, duration of use and adjustment of co-analgesics.

Methods: The ketamine protocol involves a continuous infusion based on the patient's weight, beginning at 0.1 mg/kg/hr and not exceeding a maximum infusion rate of 0.2 mg/kg/hr or 20 mg/hr, whichever is lower. The nursing staff are directed to adjust the dosage to achieve patient comfort while avoiding any side effects. Inadequate pain control can be addressed by gradually increasing the dose by 2 mg/hr every 2 hours, up to a maximum of 20 mg/hr.

Results: A total of 25 patients with complex cancer pain were included. In our experience, the administration of sub-anesthetic doses of ketamine to patients with advanced cancer suffering from intractable pain can achieve notable pain relief with minimal adverse effects. We suggest that ketamine is most efficacious in short-term period (first week).

Conclusion: Subanesthetic ketamine infusions doses can help to interrupt and reverse pain crises involving cancer pain syndromes through antagonism of the NMDA receptors, which have been implicated in reduced analgesia in response to opioids. The two case scenarios demonstrated the potential benefit of adding ketamine infusions to combination opioid and adjuvant medication regimens for the management of refractory pain crises.

43. Effect of targeting additional sensory nerves compatible with pain localization on ultrasound guided genicular radiofrequency in knee osteoarthritis

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Background and aims: Genicular nerve radiofrequency procedures are effectively performed to treat chronic pain due to knee osteoarthritis. The number of the nerves of the knee joint that need to be targeted for optimal genicular radiofrequency (RF) is still a contentious topic. Targeting additional sensory nerves based on pain localization could improve treatment success.

Methods: In these case series, patients with knee osteoarthritis underwent ultrasound guided (US) genicular radiofrequency were included. In addition to traditional genicular nerves (inferomedial, superomedial and superolateral genicular nerves) additional sensory nerves including infrapatellar branch of saphenous nerve, recurrent fibular nerve, medial branches of nerve to vastus intermedius and lateral branches of nerve to vastus intermedius were targeted based on the patient's pain location. The numeric rating scale, Short Form-36, Western Ontario and McMaster Universities Arthritis Index and opioid use were evaluated before treatment, at months 1 and 3 after treatment.

Results: A total twelve patients were included. The new technique provided significant pain reduction and functional improvement up to 3 months after the procedure. In addition, a significant reduction in opioid consumption was observed at 3 months compared with baseline ($p < 0.001$).

Conclusions: The application of ultrasound-guided RF treatment targeting the additional sensory nerves in combination with the traditional genicular nerves is an effective therapeutic procedure for knee osteoarthritis.

44. Highlight of cannabinoid treatment in fibromyalgia

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Background and aims: Fibromyalgia is characterized by chronic widespread pain, fatigue and sleep disorders without defined underlying organic disease. The exact pathophysiology is still unknown and even if various treatment strategies are used, management remains challenging. In Italy, about two million of people are affected by fibromyalgia. In the last decades, the endocannabinoid system attracted considerable interest as a potential therapeutic target of several pathological conditions and especially for pain treatment. We share our experience in fibromyalgia pain management with cannabinoids.

Methods: Twenty-seven patients were retrospectively studied by searching at the database of electronic medical

records of our operative unit. Including criteria were fibromyalgia diagnosis and the use of cannabinoids for pain management after unsuccessful treatment with other medicines. All patients were asked for privacy preserving consensus and were prescribed cannabis (tablets or oil).

Results: Among twenty-seven patients only three (11%) were males (mean age: 57), while 24 (89%) were women (mean age: 58.5). Eighteen patients (66.6%) experienced long-lasting, widespread pain in multiple body regions, four (14.8%) experienced pain mayorly in cervical zone, five patients (18.5%) mostly at lumbar area, while six patients (22.2%) mostly at the limbs. In five patients (18.5%), pain was focused on an area affected by previous accidental traumatic wound. Nineteen patients (70%) had, also, acupuncture therapy. The mean of the Visual Analogue Scale (VAS) before starting the treatment with Cannabis was 6.2 (± 0.65). After three months of cannabis treatment VAS mean decreased to 0.4 (± 1.39). Five patients referred reaction/in cannabis and dropped out therapy.

Conclusions: Fibromyalgia appears with a constellation of symptoms including pain. Our research highlights an effective treatment of fibromyalgia with cannabis.

45. Genicular nerve radiofrequency ablation (GnRFA) for post total knee arthroplasty (TKA)

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Background: Total knee arthroplasty (TKA) for osteoarthritis pain, has a high rate of success for most patients however, approximately 15–20% continue to suffer from severe chronic knee pain postoperatively.

Genicular nerve radiofrequency ablation (GnRFA), targeting the superomedial (SMGN), superolateral (SLGN), and inferomedial (IMGN) genicular nerves alleviate chronic refractory post-TKA pain and disability. We present a retrospective case series of GnRFA under fluoroscopy guidance for refractory post-TKA pain.

Methods: We collected all post-TKA GnRFA electronic/digital records from 2021 performed in our pain unit and investigated pain relief, number of procedures, time free from pain, adverse events, patient satisfaction (summarize in Table 1). Target sites were identified using fluoroscopic guidance (Fig. 1). All patients received a prognostic genicular nerve block with 2 mL 1% Lidocaine. GnRFA was performed at 80 °C for 90 seconds.

Results: Thirteen women patients were treated with GnRFA, mean age 77 \pm 9, NRS after 2 weeks from GnRFA treatment was 1.76 \pm 1.7 vs. NRS pre-GnRFA 6.8 \pm 0.6 ($p < 0.00001$). Pain was controlled for >3 months 85% of cases, >12 months 23%. Mild and transient side effects were recorded (Table 1).

Conclusion: In our retrospective cases study positive results in pain relief and disability with few adverse events were presented. GnRFA seems to ameliorate chronic knee pain post-TKA and consequent physical function for >6 months with significant patients' satisfaction and pain medications sparing.

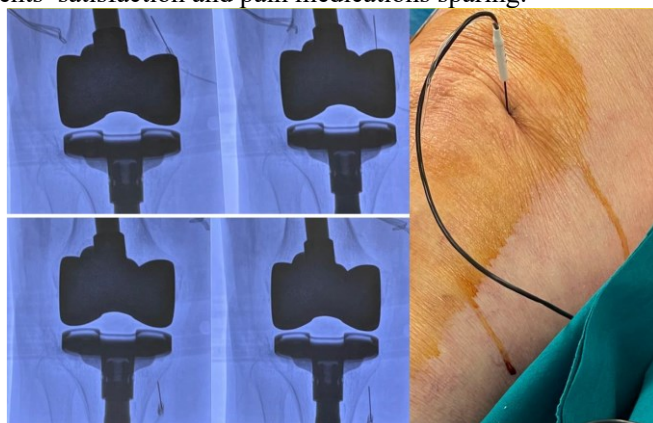


Fig. 1. Positioning of needle using the fluoroscopy guidance, and external view of the insertion point.

Table 1. Patients treated and reported in this study.

	Age	Sex	Medical History	Knee	NRS Pre-GnRFA	NRS Post-GnRFA (after 2 weeks)	NRS Post-GnRFA treatment	Time Free from pain	Adverse Events	Pain Therapy after GnRFA	Patient Satisfaction	Activities of daily living difficulty experienced
Case 1	79	F	hypertension, sacroiliitis, rheumatoid arthritis	left	7	2	1	>6 months	swelling, transient RF site pain	Paracetamol as needed	good	mild
Case 2	59	F	hypertension, hypothyroidism	left	8	0	1	>6 months	transient RF site pain	/	excellent	none
Case 3	74	F	hypertension, hyperuricemia, hypercholesterolemia	bilateral	6	0	1	9 months	swelling	/	excellent	mild
Case 4	83	F	hypertension, diabetes, glaucoma	bilateral	8	3	2 bilateral	>9 months	swelling	laroxyl	excellent	moderate
Case 5	88	F	hypertension, LBP, osteoporosis, renal failure, cognitive impairment	left	6	0	1	>12 months	/	paracetamol	good	moderate
Case 6	76	F	hypertension, diabetes, hypothyroidism	right	7	2	1	>12 months	/	/	good	mild
Case 7	58	F	hypothyroidism	left	7	0	1	>12 months	/	/	excellent	none
Case 8	85	F	osteoporosis, hypertension, dyslipidemia	right	7	6	2	<3 months	swelling	paracetamol	poor	moderate
Case 9	85	F	depression, hypertension	left	6	2	1	<3 months	/	paracetamol-codeine, ibuprofen	poor	moderate
Case 10	79	F	hypertension, LBP, rheumatoid arthritis, diabetes, renal failure, depression	left	7	0	1	>6 months	transient RF site pain	/	excellent	none
Case 11	73	F	hyperuricemia, osteoporosis	right	7	2	1	>3 months	swelling	/	good	mild
Case 12	81	F	diabetes, osteoporosis, hypertension, dyslipidemia, depression	right	7	3	1	>6 months	/	paracetamol	good	mild
Case 13	80	F	Hypertension, diabetes	left (revision)	6	3	1	5 months	/	paracetamol	good	none

46. Psychological distress in amputees with phantom limb pain

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Background and aims: Phantom limb pain (PLP) is a neuropathic pain affecting the territory of an amputated limb. It can be source of chronic suffering if not treated. The aim of this study was to evaluate the psychological impact of phantom limb pain in individuals with lower-limb loss (LLL).

Methods: It was a cross-sectional study conducted among patients with one or two lower limbs amputation. The Arabic version of PHQ9 score was used to evaluate depression.

Results: Thirty patients were included with a significantly male predominance (sex ratio M/F = 5). The mean age was 68.5 ± 5.04 years. The majority of lower-limb amputations was below the knee (83.6%). Time since amputation ranged from 2 to 6 years. Twenty five patients (83.6%) had a unilateral lower-limb amputation, whereas the others patients had a bilateral one. Phantom limb sensation was observed in 76.6% of cases with a mean intensity of 5.2 ± 2.1 out of 10. The mean PHQ-9 score was 17.83 ± 6.68 with extremes ranging from 3 to 27. Depressive symptoms (PHQ-9 >5) were noted in 93.3% of cases. Major depressive disorder (PHQ-9 >20) was present in 53.5% of cases. Univariate analysis revealed a significant association between Psychological Distress (PHQ-9) and PLP intensity ($p < 0.05$).

Conclusion: Our study showed that the prevalence of PLP was high and the majority of our amputees patients suffered from mood disorders; 93.3% had signs of depression. Targeted interventions may be needed to ameliorate both mental health and pain to ameliorate their quality of life.

47. Legg-Calve-Perthes disease: an epidemiological and clinical study

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Introduction: Primary hip osteochondritis or Legg-Calve-Perthes disease (LCP) is an idiopathic hip disorder that produces ischemic necrosis of the growing femoral head. Several factors have been incriminated without being able to be proven. Our study aims to describe the epidemiological and diagnostic aspects and report the particularities of therapeutic management.

Methods: A retrospective study of patients in the physical medicine and orthopedics department at CHU Taher Sfar of Mahdia was affected by PCL over a period of 21 years, from 2001 to 2022. The parameters studied were epidemiological, clinical, radiological and therapeutic.

Results: Our series included 24 children with a mean age of 5 years with and a sex ratio of 1.66. The main revealing symptom was painful lameness in 33.3% of cases. The disease was unilateral in 75% of cases. On physical examination, we observed a limitation of hip joint mobility in 54.16% of cases and a Derhmann sign in 12.5% of cases. Radiologically, 13 hips were at the fragmentation stage at the time of diagnosis. According to the Herring classification, 10 hips were in stage A. A device associated with Functional rehabilitation was indicated in 16 children. The indication for an abutment operation was in only one case.

Conclusion: PCL disease is a rare condition that should be considered in the presence of any painful limp in the child. The prognosis depends essentially on the precocity of the diagnosis. The choice of treatment depends on prognostic factors such as age, the extent of epiphyseal involvement, and the degree of cephalic exenteration.

48. Influence of bracing on quality of life of children with idiopathic scoliosis

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Background: Bracing treatment of idiopathic scoliosis (IS) can have a negative physical and psychological effect, especially in adolescents. The aim of our study was to determine the impact of Chêneau brace treatment on the quality of life (QOL) of adolescents with IS.

Methods: This cross-sectional study conducted over a period of six months (September 2021–February 2022) included adolescents with IS divided into two groups: (G1) included patients treated by brace and rehabilitation, and (G2) by rehabilitation only. We assessed their QOL by the Quality of Life Profile for Spine Deformities (QLPSD), the Scoliosis Research Society- 22 Items (SRS-22) and the Visual Analogue Scale – Quality of Life (VAS QL) and studied the correlation between the QOL and the correction's angle, the treatment's duration, the age, and the Risser index.

Results: Twenty-seven girls (56%) and 21 boys (44%) participated with a mean age of 14 ± 2 years. The QLPSD was better for G2 according to the three scales with a significant difference. According to VAS QL, we observed a correlation between QOL and correction angle in corset wearers. As for the QLPSD, we found significant associations between brace wearers' psychosocial status and age, correction angle, and length of treatment. The SRS-22 showed that satisfaction was correlated with brace correction and treatment duration.

Conclusion: Although bracing treatment can alter the quality of life in adolescents with IS, it remains a preponderant therapeutic tool in IS.

49. Sever's disease in rehabilitation department: epidemiological and clinical study

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Introduction: Sever's disease (SD) is the most common cause of heel pain in children. The risk factors are varied. The treatment is symptomatic, but it must be above all preventive. The aim of our study was to describe the epidemiological and clinical characteristics and to determine the therapeutic modalities of (SD) in rehabilitation department.

Methods: Descriptive cross-sectional study including children examined for heel pain related to SD from 2014 to 2022. We determined the epidemiological and clinical characteristics, and therapeutic modalities.

Results: The study included 9 patients with a mean age of 10 years and a sex ratio of 3.5. Overweight and morpho-static foot disorders were the two main risk factors noted. Heel pain was often bilateral and asymmetric. X-rays revealed nonspecific signs of hyper-condensation and/or fissuring in 7 children. Management consisted essentially in stopping sports activities, prescription of analgesics and/or non-steroidal anti-inflammatory drugs (NSAIDs), and rehabilitation with the use of foot orthoses. The evolution was favorable with resumption of sports activity after a median of 12 months in 2 patients. One boy developed Achilles tendonitis 1 year after the onset of symptoms.

Conclusion: Although preventive treatment is the most important component in the management of SD, there is no denying in the effectiveness of rehabilitation.

50. Metatarsalgia in rehabilitation department: a descriptive study

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Aim(s): To describe the epidemiological and clinical characteristics of metatarsalgia and to determine the different modalities of the management in a rehabilitation department.

Methodology: Descriptive study including a patient with metatarsalgia carried out in the Physical Medicine and Functional Rehabilitation Department (MPR) of the Tahar Sfar Hospital in Mahdia over a period of 3 months (from April 2022 to June 2022).

Results: Fifty-two patients were collected with an average age of 44.6 years. On clinical examination, plantar hyperkeratosis was found in 42.3% of patients and plantar callosities in 27% of cases. Toe claw was observed in 16 cases. On podoscope, we found 57.7% of patients with hollow feet and 40.4% with flat feet. The 2nd ray syndrome

was found in 17.3% of cases. Standard foot radiographs were performed in only 28.8% of the patients and foot ultrasound was performed in 3 patients among 4 diagnosed with Morton's neuroma. Static foot disorders were the most frequent etiology in 83% of cases. Morton's neuroma was observed in 7% of cases, while Freiberg's disease was found in 4% of patients and fatigue fracture in 6% of patients. Corticosteroid-based infiltrations were performed in 3 cases of inter-metatarsal neuralgia, and custom-made foot orthoses were prescribed in 88.6% of patients. Seven patients had received physical therapy.

Conclusion: Metatarsalgia is one of the most common reports in patients with foot problems. There is great variability in possible causative factors, but all of them seem to be related to gait mechanics and foot and ankle deformity. An individualized treatment protocol is required.

51. Prevalence and factors associated with chronic low back pain in hospital staff

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Introduction: Chronic low back pain (CLBP) is a public health problem due to its frequency and consequences in the workplace. This study aims to determine the prevalence and factors associated with CLBP in hospital staff.

Methods: Cross-sectional study, conducted at the CHU Taher Sfar of Mahdia, on hospital staff from different services among different categories, over a period starting from January to April 2022. These employees have responded to a pre-established questionnaire with 46 items.

Results: Our study included 203 staff with a mean age of 35.64 ± 9.39 years. Overweight was noted in 54.2% of the staff. A history of rheumatic disease was reported in 16.7% of the cases. Anxiety was present in 16% of cases. The mean value of professional seniority was 9.41 ± 9.1 years with an average number of working hours of 40.38 ± 10 hours per week. Lumbar spine movements in tension were noted in 156 personnel, while exposure to trauma or vibration was mentioned in 25.1% of cases. The prevalence of low back pain was 71.4%. The associated factors were a history of rheumatic disease ($p = 0.007$), anxiety ($p = 0.01$), delivery by cesarean section ($p = 0.003$), monotony ($p = 0.001$), and high psychological demands ($p = 0.027$). Sport and sharing of tasks were rather protective factors.

Discussion: The prevalence of CLBP among hospital staff is significant. Several factors are associated with this disease that justifies the implementation of a general prevention strategy.

Conclusion: Health education on posture and correct lifting techniques can be introduced to reduce the burden of CLBP among these workers.

52. Transversus abdominis plane block in liver and renal transplant recipients

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Background and aims: Transversus abdominis plane (TAP) block is good for surgeries in which parietal pain is the main cause of pain. Liver and kidney recipients are well-suited to get the most benefit from TAP block. The aim of the study was to evaluate the analgesic efficacy of TAP blockade in transplant recipients.

Methods: The study included 22 donors of the right lobe of the liver and 64 recipients who underwent kidney transplantation from a living related donor. In study group at the end of surgery during closure, a multiorifice epidural catheter was placed in TAP plane. Patients received bupivacaine bolus 1 mg/kg (0.25%) followed by infusion 0.25 mg/kg (0.125%) through the catheter. The comparison group included 58 patients non-steroidal anti-inflammatory drugs (NSAIDs) and narcotic analgesics were used as analgesia in the postoperative period.

Results: Evaluation of the effectiveness of analgesia in the postoperative period was NiBP (Non-Invasive Blood Pressure), HR (Heart Rate), glycemia and VAS (visual analog scale) of pain intensity. In the comparison group: NiBP— $135.5 \pm 24.5/80.0 \pm 20.0$ mm hg., HR— 95.2 ± 18.8 beats per minute, glycemia 6.7 ± 2.3 mmol/L, VAS— 5.1 ± 1.9 points. In the main group: NiBP— $113.75 \pm 24.25/68.5 \pm 13.5$ mm hg., HR— 76.6 ± 13.4 beats per minute,

glycemia 5.8 ± 1.2 mmol/L, VAS 3.65 ± 3.35 points. In three cases, with a VAS score of over 7 points, single injections of opioid analgesics were used. In six cases, with 4–6 points on the VAS scale, NSAID injections were used.

Conclusion: The TAP catheter technique for postoperative pain relief in liver and kidney transplant recipients is highly effective in relieving postoperative pain with less need for narcotic analgesics and less sedation.

53. Postoperative management and sedation of patients receiving long-term mechanical ventilation

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Background and aims: It is known that 85% of patients in intensive care unit (ICU) receiving mechanical ventilation require sedation, which is necessary to reduce pain, anxiety and arousal. The aim of the study was to compare dexmedetomidine and propofol in terms of stabilizing the physiological state of patients on long-term mechanical ventilation (more than 48 hours).

Methods: Prospectively, data were collected from 122 patients after cardiac (44.3%), thoracic (9.8%) and abdominal surgery (45.9%). The mean age was 52.4 ± 3.3 (from 18 to 81) years. All patients were on prolonged mechanical ventilation, 65 patients received dexmedetomidine, and the remaining 57 patients received propofol. Dexmedetomidine was administered at a dose of 1 μ g/kg over 10 min followed by a maintenance infusion of 0.2–0.7 μ g/kg/h. Propofol was started at 0.3 mg/kg/h, increased in increments of 0.3–0.6 mg/kg/h until the desired level of sedation was achieved. Ramsey sedation levels, heart rate, respiratory rate, oxygen saturation, recovery time from sedation, and need for analgesics were recorded. Statistical data were analyzed using Student's t-test and chi-square test.

Results: Mean heart rate, respiratory rate, blood pressure between groups were not statistically significant ($p = 0.14$). The mean RSS was between 2–4 and 2–3 for the dexmedetomidine and propofol groups, respectively ($p = 0.16$). However, patients receiving propofol infusions required additional analgesics (fentanyl and morphine) than those receiving dexmedetomidine. No adverse events were observed in this study.

Conclusion: Dexmedetomidine provides adequate and safe respiratory support with improved external respiration, minimal negative hemodynamic effects, and less need for additional analgesics.

54. Pain management in acute pancreatitis with persistent organ failure

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Background and aims: An important priority in the treatment of acute pancreatitis is the treatment of pain. There are conflicting current data and guidelines regarding the most effective pain management protocol. This study aimed to compare the safety and efficacy of various analgesics for pain relief in moderate acute pancreatitis.

Methods: The results of treatment of 94 patients with acute pancreatitis of moderate severity were analyzed. The main etiological forms of acute pancreatitis were: biliary in 46.8% (44/94), alcohol (including alimentary-toxic)—in 34.0% (32/94) of cases, traumatic pancreatitis was less common (including cases after endoscopic interventions)—19.2% (18/94) of observations.

Results: The analgesics tested significantly reduced the need for emergency analgesia compared to the latest pain management protocol or traditional treatment. Analgesics also improved pain score (visual analogue scale) at 24 h ($p = 0.014$) and from days 3 to 7 ($p = 0.021$). Opioids compared with non-opioids were associated with a reduced need for emergency analgesia (odds ratio (OR) 0.32, 95% Confidence interval (CI) 0.14–1.52, $p = 0.04$), but no significance for pain assessment. In subgroup analysis, opioids were similar to dexketoprofen (dexalgin) in terms of primary outcome (OR 0.58, 95% CI 0.19 to 1.28, $p = 0.14$). There were no significant differences in other clinical outcomes and adverse events. Comparison of epidurals with patient-controlled analgesia and opioids (buprenorphine) versus opioids (pethidine) showed no significant difference in primary outcomes.

Conclusion: Dexketoprofen (dexalgin) and opioids are equally effective in reducing the need for emergency

55. Sedation and analgesia in patients with COVID-19 associated cardiovascular complications

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Background and aims: Cardiovascular disorders are a common comorbidity in COVID-19 and require intensive care, sedation, and analgesia. These patients typically require higher doses of sedatives and often for extended periods of time. This study compares of the effectiveness of sedation strategies in patients with COVID-19 associated cardiovascular disorders.

Methods: The study was based on the results of treatment of 96 patients with COVID-19 associated cardiovascular complications. 52 patients (the main group) received dexmedetomidine, and the 44 patients (comparison group) received propofol. Dexmedetomidine (0.2–0.7 µg/kg/h) and propofol (0.3–0.6 mg/kg/h) were administered in maintenance infusion with the desired level of sedation was achieved. Ramsey sedation levels, heart rate, respiratory rate, oxygen saturation were recorded.

Results: Respiratory rate within the normal range (19.2 ± 0.7 per minute) was achieved only a day later on the background of sedation with dexmedetomidine ($p = 0.37$). The blood saturation indicator (SpO₂) increased from the initial $44.6 \pm 1.4\%$ to $84.6 \pm 0.2\%$ 24 hours after the start of therapy in the propofol group and from $43.2 \pm 1.4\%$ to $88.2 \pm 0.3\%$ in the dexmedetomidine group ($p < 0.05$). Dexmedetomidine showed the best therapeutic effect on arterial blood gases and correction of acid-base balance. In the dexmedetomidine group, a more pronounced effect of sedation was noted, but without a transition to bradycardia. There was no difference in blood pressure between the two groups ($p = 0.60$) during and after administration of the sedative.

Conclusion: In patients with cardiovascular complications associated with COVID-19, dexmedetomidine provides adequate and safe respiratory support with improved blood gases and hemodynamic parameters.

56. Management of neuropathic pain in a patient suffering from eosinophilic granulomatosis with polyangiitis (EGPA)—Churg-Strauss syndrome. Case presentation

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Introduction: Patients suffering from eosinophilic granulomatosis with polyangiitis (EGPA) present with neuropathic pain and numbness of the extremities in almost 100% of cases, resulting in reduced function and quality of life levels in a great extent.

Methods: We are reporting the case of a 45-year-old woman suffering from EGPA presented with severe neuropathic pain in the lower extremities. Pain was assessed using the VAS scale and neuropathic pain using the DN4 questionnaire.

Results: On the initial visit the patient presented with severe pain (VAS: 8–9) and neuropathic pain (DN4: 6). We managed the patients with daily doses of: pregabalin 300mg (after titration), tramadol 112.5 mg and paracetamol 2475 mg. One month after initiation of the treatment the patient reported milder pain and fewer neuropathic elements (VAS: 5–6, DN4: 5). The administered doses of tramadol and paracetamol were reduced to 75 mg and 1650 mg respectively, while the dose of pregabalin was increased up to 600 mg (in a stepwise manner). Six months after the start of treatment, the patient reported no symptoms and only mild numbness and paraesthesia (VAS: 0, DN4: 2). A gradual reduction of the doses of the administered analgesics was recommended. Seven months after the start of treatment the patient stopped tramadol and paracetamol, while the dose of pregabalin was lowered to 150 mg gradually.

Conclusion: A stepwise individualised administration of pregabalin, in combination with tramadol and paracetamol, seems to be adequate to treat neuropathic pain in patients with EGPA and improve the quality of life.

57. The use of the harmonic touch in the management of rescue dose in major head and neck oncological surgery patients

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Introduction: The “Harmonic Touch” is a slow massage that acts in favor of the body’s natural mechanisms and has the aim of making the patient feel good physically and psychologically.

Aim: Evaluate the effect of the “Harmonic Touch” in the management of the rescue dose (pain NRS >3) as an alternative to the pharmacological therapy in use.

Methods: From March 2022 to March 2023, n. 30 patients were observed (n. 24 men and n. 6 women) with a mean age of 61 years. If pain NRS >3, the rescue dose was administered using harmonic touch instead of Tramadol 50 mg in 100 mL of saline solution.

Results:

- Patients who have done the rescue dose were n. 18 (n. 12 one rescue dose and n. 6 two rescue dose).
- Total rescue dose administered: n. 24.
- Mean pain before rescue dose: NRS = 5.
- Mean pain after rescue dose: NRS = 2.
- Patients with rescue dose benefit (“Harmonic Touch”): n. 15/18.
- Complications: none.

Conclusions: From the analysis of the data, the pain after the treatment with “Harmonic Touch” is controlled, with average pain below NRS = 3 and with a pre and post treatment reduction of 2 NRS points. In consideration of the results obtained, the protocol implemented in synergy between anesthesiologists, nurses and ENT specialists, has been proven to be effective and safe. No complications were found and, moreover, the good pain control after Rescue Dose with “Harmonic Touch” made it possible to reduce the use of painkillers.

58. Mistrust and barriers in the relationship between vulvar pain patients and physicians. Preliminary results of an anthropological study about pain experiences of vulvodynia in Italy

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Background: Little is known about how patients with vulvar pain experience their relationships with physicians. Are doctor-patient interactions efficacious?

Methods: I am developing an ethnographical study to explore experiences of vulvar chronic pain, a disabling condition still in course of recognition in Italy. Preliminary results originate from 17 in-depth-interviews with patients and physicians (pain specialists, gynecologists and physiotherapists), lasting from 50 to 150 minutes, voice recorded and analyzed according to thematic analysis.

Results: Interviewees are white Italian females, mainly based in Milan and Rome. Patients’ ages range between 19–57 years old, with diagnostic delay between 3 and 27 years. Illness narrative highlights medical nomadism and short-term therapeutic alliances characterized by mistrust and anger: pain is perceived as underestimated by doctors and sufferers are delegitimized disqualifying pain as not real or related to psychological disorders. Patients report frustrations and low motivations to engage in clinical alliances, and online forums are preferred sources of knowledge, limiting consults with physician to obtain pre-established prescriptions. Doctors confirm communication difficulties, highlighting risks for patients who pre-elaborate self-prognosis and treatments. Patients are perceived as undisciplined for the affective connection they try to establish, expecting emotional support beyond medical consults.

Conclusions: The communication between vulvar chronic pain patients and physicians is characterized by incomprehensions about the role of pain and origins of the disease. Additionally, mistrust and unmatched expectations limit the therapeutic potential of the doctor-patient relationship. Preliminary results highlight the rising autonomy of patients for pharmaceutical therapy and professionals to consult.

59. Chronic pain in stroke rehabilitation and comorbidity—adding or overlapping?

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Background and aim: Chronic pain is a common issue in stroke rehabilitation and has a negative impact on functional outcomes. However, it is unclear whether chronic pain in stroke patients represents a comorbidity or a symptom/impairment after stroke. The aim of our study is to determine whether the presence of chronic pain adds to the number of comorbidities in this specific population.

Materials and methods: A total of 221 stroke patients enrolled in rehabilitation programs at the Clinical Hospital of the Ministry of Health for the Republic of Moldova were included in the study. We recorded information about the presence of chronic pain and the number of comorbidities. An independent samples t-test was conducted to compare the number of comorbidities in those with or without chronic pain.

Results: Out of 221 individuals, 107 (48.4%) reported no pain, while 114 (51.6%) reported chronic pain. The number of comorbidities ranged from 0 to 10, with a mean of 3.59 (Standard Deviation SD-1.52). The mean number of comorbidities for individuals with no pain was 2.79 (SD-1.04), while for those with chronic pain, the mean number of comorbidities was 4.34 (SD-1.52). The independent samples t-test showed that the mean number of comorbidities for individuals with chronic pain was significantly higher than for those with no pain ($t = -18.459$, $df = 219$, $p < 0.001$).

Conclusion: Comorbidity is often associated with chronic pain in post-stroke patients, and it seems that chronic pain adds additional associated conditions for these patients. These findings have important implications for stroke rehabilitation programs, highlighting the need for the assessment and management of chronic pain in stroke patients to improve their overall functional outcomes.

60. Tennis and golf elbow, will we prescribe “wait and see”: a scoping review

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Background and aims: To evaluate the effectiveness of wait-and-see approach on pain, disability, global improvement, and pain-free grip strength in individuals with lateral elbow tendinopathy.

Methods: We conducted a research according to Prisma according to the research equation “Tennis Elbow or lateral Epicondylitis or Golf Elbow or Medial Epicondylitis and Treatment and Wait and See”. We only include randomized controlled trials.

Results: We finally included 4 studies that talk about the Wait and See method for the management of these tendinopathies.

Control groups received eccentric, shock wave therapy and supervised home exercises.

The results of the studies are heterogeneous and do not show the superiority of the Wait and See method in relation to the control group and don't conclude the effectiveness of the Wait and See method in the treatment of tennis and golf elbow.

Conclusion: The elbow tendinopathies are very frequent, the therapeutic abstention if it proves its effectiveness will reduce the care of this pathology.

61. The effect of the Pilates method in the management of chronic low back pain

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Background and aims: Low back pain is a very common pathology which constitutes a real public health problem. The aim of this study is to compare the impact of the Pilates method on pain and functional disability compared to the classic method usually used in physiotherapy for patients suffering from chronic low back pain.

Methods: A seven week comparative study including chronic low back pain patients was conducted in a private physiotherapy clinic. The sample was divided into two groups (G): G1 had a classic rehabilitation protocol and G2 had the same protocol associated with the Pilates method. The clinical examination as well as the functional assessment and the quality of life were done before and after the intervention.

Results: A total of eight patients were included in the study with an average age of 37 years. Pain assessment showed a decrease in VAS of 5.25 points for G2 against 4.25 for G1. Endurance tests were increased for G2 more than G1 (Shirado increased by 17.3” and Sorensen by 12.1”). EIFFEL scale scores have decreased (G2 by 7 points vs. G1 by 5 points). Quality of life assessed by the DALLAS score has improved in both groups with a gain of 20.75% for G1 and 27.5% for G2.

Conclusions: Our results showed that both techniques were effective. However, other studies with a larger number of patients should be conducted to better study the reliability and effectiveness of the Pilates method.

62. Nutritional status of cancer patients at the end of life—a review of studies

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The World Health Organization describes cancer as a broad collection of disorders that can begin in virtually every organ or tissue of the human body. It is the unchecked proliferation of aberrant cells that target nearby bodily organs and/or surrounding body parts. Patients were reluctant to go to hospitals for treatment as a result of the restrictions imposed in the wake of the COVID-19 pandemic. This reluctance was brought on by worry and concern about catching SARS-CoV-2. An easy-to-use tool was created to evaluate the risk of nutritional risk and loss of muscle mass in response to the COVID-19 pandemic outbreak. An essential part of quality of life for cancer patients is their nutritional status. It is evaluated using anthropometric nutritional indicators, a physical examination, biochemical and immunological testing, and scales designed for this purpose. There are differences between illnesses like malnutrition, sarcopenia, and cachexia. The patient can experience diminished thirst and appetite in the final stages of life. It is thought that artificial feeding techniques are no longer effective because this is a physiological process that occurs throughout death. These conditions can develop earlier and are not always connected to the start of the dying phase. The main purpose of this study was to systematize knowledge about the nutritional status of oncology patients in the last period of life. In addition, an effort was made to show methods for assessing this state and to demonstrate which questionnaire for assessing nutritional status is most helpful. The paper was prepared based on a search of publications in the PubMed database by searching for keywords related to the topic.

63. High School Students in athletic programs face higher levels of stress compared to university level students in athletic programs

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School- and university-based athletic programs offered in the United States put extra demands on students. Student-athletes must balance their schoolwork with their performances in their sports. With time being split between school and sports, the question of whether these students are more stressed surfaces. An online survey was conducted via social media and email.

The participants of this study consisted of US high school and college athletes who were sent surveys via social media and email. The questions focused on the participants' stress levels due to the sport they played while in school. The numerical Likert scale measured participants' levels of stress and impairment. It was found that 67% of respondents find that playing a sport impairs their schoolwork. Along with this, 61% of respondents said no to when it comes to

sports improving their performance in school. In comparison, 82% of people said the balance of sports and school increases their level of stress. The data also infers that high school students have higher stress and impairment levels than undergraduate students. Overall, the study results showed a positive correlation between playing a sport while in school and the stress levels of student-athletes. There were more feelings of stress due to balancing the workload of being an athlete while also keeping up with schoolwork and other activities. The data infers that high school students in athletic programs have more stress and impairment compared to undergraduate students in athletic programs.

64. 3 Point shoulder injection (3PSI)—a novel approach to shoulder pain

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Background: There is a high prevalence of chronic shoulder pain reported among healthcare workers and labourers in Malaysia. Rotator cuff disorders, acromioclavicular joint (ACJ) disease and glenohumeral joint (GHJ) disorders are the most common causes of shoulder pain. This study aims to report on the effect of ultrasound-guided 3PSI prolotherapy in patients with chronic shoulder pain.

Method: Thirty patients who were diagnosed with pathologies encompassing the ACJ, subacromial space and GHJ, a Pain Numerical Rating Scale (NRS) ≥ 5 and shoulder pain for at least three months were included in this study by using convenience sampling. A single 21 G needle with a total of 5 mLs prolotherapy (2 mLs of Dextrose 50%, 1 mLs Lignocaine 1% and 1 mLs of water for injection) was introduced from the ACJ to the GHJ using the ultrasound guidance. Prolotherapy was introduced to GHJ, followed by subacromial space structure and finally to the ACJ as the single needle being withdrawn upwards.

Results: An ANOVA with repeated measures was used to compare the pain score at baseline, immediately post 3PSI, and at follow-up (at 2 weeks and 6 weeks post 3PSI) for all 30 patients. There was a statistically significant association among the pain score at baseline when compared to immediately, at 2 weeks, and at 6 weeks post 3PSI as highlighted below.

Conclusion: We recommend the injection of prolotherapy using this unique method for pain control in patients with multi-site shoulder pathologies, especially involving ACJ, subacromial structures and GHJ shows great success even until 6 weeks post-procedure.

65. Procedural pain intensity and fear during covid-19 vaccination in nurses—a retrospective preliminary study

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Background and aims: Needle-related procedure during vaccination is the most common source of pain, distress and fear. Aims of the study was to compare fear of procedural pain (PP) and personality traits in relation to the intensity of PP during COVID-19 vaccination in nurses.

Methods: Retrospective study of $n = 155$ (80% women) nurses with an average age of $M = 33.73$, and an average length of practice of 11.57 years, were examined at the Motol University Hospital and 2nd Faculty of Medicine from January to March 2023, by these methods: interview, VAS-I (Visual analog scale, pain intensity 0–10), Adult Faces Anxiety Scale (fear intensity 0–5). A VAS-I greater than 4 during COVID-19 vaccination was defined as moderate to severe PP.

Results: The group with moderate to severe PP intensity ($n = 32$, 20.6% of the total sample, mean VAS-I = 7.09) differed significantly ($p < 0.05$) from the group with mild intensity of PP ($n = 123$, 79.7% of the total sample, average VAS-I = 1.52) in higher age, predominance of women and longer length of nursing practice ($p < 0.05$). The group with moderate to severe PP significantly more often suffered from chronic pain (79.7% versus 21,0%), more often

considered themselves fearful (96.9% versus 20.3%), more often described themselves as inferior (90.6% versus 19.5%), had significantly higher the average intensity of fear of PP before ($M = 2.81$ versus $M = 0.80$) and after the vaccination procedure ($M = 1.09$ versus $M = 0.28$) ($p < 0.05$).

Conclusions: The evidence-based psychotherapeutical strategies for reducing procedural pain can be used for prevention of fear of pain in nurses.

66. An expert opinion of Greek Pain specialists on the diagnostic odyssey of patients with chronic neuropathic pain

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Introduction: The diagnosis of chronic neuropathic pain requires a laborious process and can be a very long journey for the patients, that can be characterized as an “odyssey.” Our aim was to investigate the “diagnostic odyssey” of the patients suffering with chronic neuropathic pain in the Greek context.

Methods: We are presenting a national wide survey conducted amongst Pain Specialists, working at dedicated Chronic Pain and Palliative Care centres in Greece.

Results: In total, 44 respondents provided information on the organization of their centers, the diagnostic process, and the perceived obstacles involved in the diagnosis of chronic neuropathic pain. Most clinicians reported that their centers were not fully or efficiently organized and believed that additional specialized healthcare personnel should be recruited. The diagnostic delay has been reported as three years between the onset of symptoms and seeking general medical help and another nine years before they reach a pain specialist. Neuropathic pain is associated with patient distress and socioeconomic burdens. Diagnostic delays may worsen the condition and lead to the utilisation of further healthcare resources. Patient awareness regarding the existence of specialised centers is considered a key factor to overcome the two main obstacles in reaching a diagnosis; the difficulty of non-experts to recognizing chronic neuropathic pain and the lack of acknowledgement that chronic neuropathic pain is a condition that needs to be addressed.

Conclusions: A better organization of pain and palliative care centers, a route of communication with previously treating clinicians, increased personnel, utilization of a chronic pain registry, and development of guidelines can benefit patients.

67. The management of myofascial pain syndrome associated with chronic neck pain using myofascial release techniques

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Introduction: Myofascial pain syndrome (MFPS) is defined as the sensory, motor, and autonomic symptoms caused by trigger points, which typically develop after muscle overuse. It is common in patients presenting chronic neck pain. However standard rehabilitation methods are insufficient. The aim of this study was to evaluate the effectiveness of treatment of myofascial trigger points in chronic neck pain.

Methods: A randomized controlled study included 20 patients with MFPS associated with chronic neck pain. Patients were divided into 2 equal groups: A and B. The group A benefited from a protocol associating myofascial release techniques to a conventional rehabilitation program. Patients in group B benefited from a conventional rehabilitation program alone. Evaluation parameters were noted at baseline and after 3 months of the rehabilitation protocol. Pain was assessed using the Visual Analog Scale (VAS), cervical mobility and muscle tension using the Nilson scale and the functional impact using the Neck Disability Index (NDI).

Results: Statistically significant change was present for pain, cervical mobility with $p < 0.05$ for both groups. A greater decrease in muscle tension and functional abilities were noted in group A.

Conclusion: Myofascial release techniques are effective in the management of MFPS. They may decrease pain and improve function.

68. The use of ketamine for treatment of opioid addiction: a newer treatment modality

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Introduction: Ketamine is an anesthetic drug that antagonizes the n-methyl-d-aspartate (NMDA) receptor in the central nervous system. Currently, it has gained popularity to be a fast-acting anti-depressant; however, other studies are showing that Ketamine is useful in treating addiction for drug and alcohol abuse. Regardless of the limitations in methods in this field, there are optimistic results. Ketamine has been proven to help opioid dependent people and alcoholics extend their abstinence. How ketamine works within addiction is postulated in a variety of ways including: amplification of neuroplasticity and neurogenesis, interrupting important neural networks, blocking any fond memories of opioid use, treating any sign of depression, and amplifying mental therapy.

Methods: A narrative review on novel uses of Ketamine was used to determine the efficacy on the treatment of opioid addiction. Ketamine has shown to be a rising treatment after much success with being therapeutically effective for treating depression. Randomized controlled trials are needed to determine the efficacy of Ketamine. The preliminary findings in past studies indicate that a combination of transcranial magnetic stimulation and a dose of ketamine would be effective with people who are addicted to opioids. TIMBER (Trauma Interventions using Mindfulness Based Extinction and Reconsolidation of memories) attempts to try to change how people see memories that cause them trauma. It has been given effort in the past and has an astounding success rate for post-traumatic stress disorder (PTSD). The mix of removing memories and replacing these memories with a slightly modified version of the original memory is what TIMBER entails, and that is what elucidates how effective Ketamine is in treating PTSD and how it will be helpful in treating substance use disorders.

Results: Despite a paucity of research, some studies have been recognized. There are two studies that have focused on cocaine use disorder, two studies that have focused alcohol use disorder, and another three studies focused on opioid use disorder. In the studies involving cocaine, the use of Ketamine helped with craving, motivation, and lowered the use of Ketamine in individuals. Studies involving opioid and alcohol use disorders found major developments in abstinence rates with the use of Ketamine. In another randomized controlled trial, a single Ketamine infusion with the combination of therapy was able to increase the chance of abstinence, prolonging the relapse time, and lower the chances of days with lots of alcohol consumption.

Conclusions: These results conclude that Ketamine has a major impact on abstinence across all kinds of substances of abuse and justifies more research in the treatment of addiction. These studies and controlled trials in the treatment of alcohol, cocaine, and opioid use disorders do pose future directions for this research. A new area of research that should be investigated is motivational therapy in combination with Ketamine. Hopefully, the integration of these behavioral treatments could soon lower the dose of Ketamine without any substance use withdrawals. More research is needed to identify positive results that can be replicated in a larger pool of individuals.

69. The management of home pain after tonsillectomy surgery

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Introduction: The pain secondary to tonsillectomy in adult patient is one of the most difficult to manage. From a previous study with administration of painkiller as needed, patient's average pain was NRS >6.

Aim: Evaluate post—tonsillectomy pain in adult patients for a period of seven days after discharge to verify the effectiveness of the home pain therapy.

Methods: From May 2021 to May 2022, n. 30 adult patients (n. 16 males and 14 females) with a mean age of 35

years were observed. At patient discharge was administered Paracetamol 1 g every eight hours for 48 hours and after 48 hours Paracetamol 1 g as needed if NRS >3, without exceeding 3 g/die. The patients were educated to evaluate their pain with the NRS scale and to write it on a pre-printed sheet of paper three time a day.

Results: The mean pain in the seven days of observation was NRS = 3. The average amount of painkiller administered during the observation period:

- Day 1: 3 g
- Day 2: 3 g
- Day 3: 1.5 g
- Day 4: 1 g
- Day 5: 0.5 g
- Day 6: 0.3 g
- Day 7: 0.2 g

The total number of rescue dose administered was n. 51.

Conclusion: This study shows that pain at home, managed with an appropriate timed analgesic therapy, is more effective compared to that administered as needed (NRS >6 vs. NRS = 3) with progressive reduction of pain that regresses over the days and, similarly, we observed a reduction of painkillers.

70. Ultrasound guided dry needling, an alternative management for post fracture nerve entrapment: a case report

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Introduction: Humerus fracture can cause nerve entrapment due to stretch injury during open surgery or direct nerve contusions at the time of injury [1, 2]. Nerve hydrodissection (HD), is a common technique but Ultrasound guided (USG) nerve dry needling is an interesting alternative to manage nerve entrapment [1–3].

Case report: A 41-year-old male presents with pain at left elbow following open reduction and internal fixation of distal left humerus fracture. Pain and tingling was described along the radial and ulnar areas with pain score (Visual Analogue Scale (VAS)) of 8 out of 10. There was also decreased cutaneous sensation at radial and ulnar nerve distributions, and the active range of motion (ROM) of the left elbow decreased. Ultrasound revealed swollen radial (Fig. 1) and ulnar nerve (Fig. 2) proximal to the left elbow. Ultrasound guided nerve dry needling (Fig. 3) were done at the swollen nerve using sterile acupuncture needle using an in and out movement, with peri-nerve vibration technique to release the fascia around the nerve. Immediately after the intervention, VAS decreased to 2, ROM increased 30° for all movement, and sensation deficit dropped from 90% to 30% deficient. The treatment was repeated 1 week apart which results in VAS become 1, sensation deficit drop to 10%. Observations at 1 month after the intervention shows sustained results.

Conclusion: Ultrasound guided nerve dry needling is a simple and may be an effective treatment option for post traumatic and post-surgical nerve entrapment. It can be an alternative treatment option for neuropathic pain.

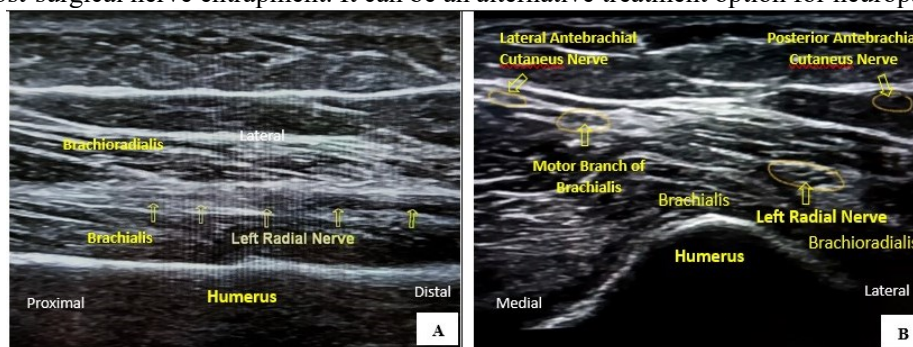


Fig. 1. Left radial nerve. A. Left radial nerve long axis. B. Left radial nerve short axis.

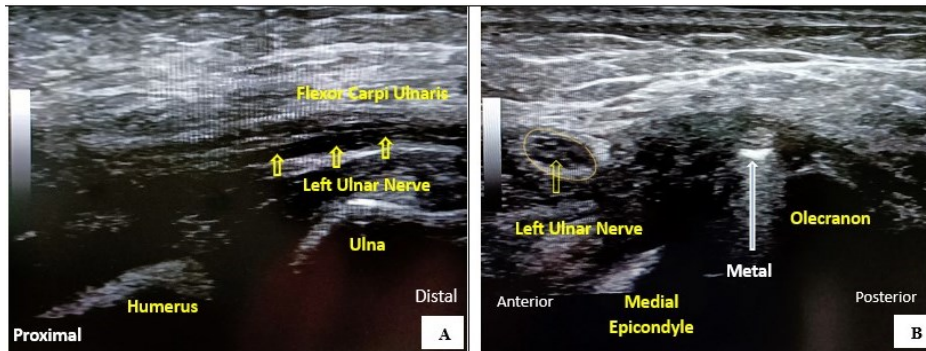


Fig. 2. Left ulnar nerve. A. Left ulnar nerve long axis. B. Left ulnar nerve short axis.

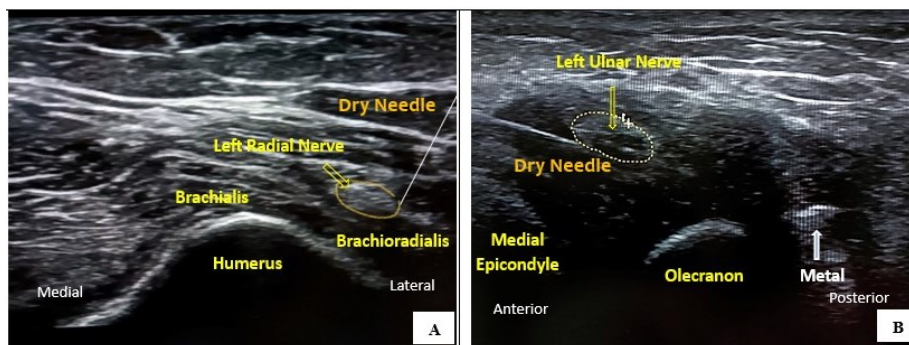


Fig. 3. Ultrasound guided nerve dry needling at swollen nerve to release the fascia around the nerve. A. Ultrasound guided dry needling at radial nerve. B. Ultrasound guided dry needling at ulnar nerve.

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71. Management of Acute Cancer Pain in Asia

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The suboptimal management of cancer pain in Asia is mainly driven by over-regulation and limited access to opioids. Concerns about adverse events and addiction have led to a negative perception of opioids among both physicians and patients. Also, due to religious beliefs, many Asian patients are apprehensive in expressing the full extent of their pain. The result is that cancer pain is undertreated in over 50% of patients in Asia with devastating consequences on patients' quality of life. There is a need to optimize the management of cancer pain across the region, through the provision of an alternative treatment option that is simple to prescribe, convenient to administer, and well tolerated by patients, which will increase patients' compliance and good results.

As recommended in many international guidelines, starting by the WHO analgesic ladder, cancer pain can be effectively managed with multimodal analgesia. The tramadol/dexketoprofen fixed-dose combination (FDC) combines a centrally acting weak opioid with a peripherally acting NSAID to deliver rapid-onset, long-lasting analgesia, which has been proven efficacious and safe in the management of moderate-to-severe acute pain in postoperative settings. It also has the potential to block acute and mixed pain occurring at any point throughout the cancer patient's journey.

This expert opinion has been recently published, as a result of an extensive and well documented Delphi Panel study [1]. It is essentially based on existing data on the use of the drug, and on the experience of the experts in pain management of cancer patients.

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72. Shoulder anterior capsular block for shoulder arthroplasty: two case reports

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Background and aims: The research for novel block techniques to manage pain at shoulder arthroplasty continues to alleviate potential risks and relieve pain without motor block [1, 2]. We report shoulder anterior capsular block (SHAC) applications in two patients with arthroscopic rotator cuff repair in terms of their possible contribution to perioperative analgesia and anesthesia management.

Case presentation: Informed consent was obtained from the patients.

Patient-I: A 65-year-old patient was scheduled for rotator cuff repair surgery. General anesthesia was planned by adding preoperative SHAC block (0.375% bupivacaine 10 mL and 2% lidocaine 5 mL). Anesthesia and analgesia were maintained only with sevoflurane (Minimum alveolar concentration MAC 0.8 %) and intravenous 1 gr paracetamol/4 mg iv dexamethasone. Without the extra medication, controlled hypotension was achieved, and a high-quality arthroscopy visualization was obtained. The patient-I's Numerical Rating Scale (NRS) is shown in Table 1. In addition, intravenous 100 mg tramadol was administered only once at the 24th hour.

Patient-II: A 47-year-old patient was planned for the same procedure with the same anesthesia and analgesia protocol. Since the patient's high BMI and short neck would create difficulties in application, SHAC block application was preferred instead of interscalene block. And the block procedure lasted only 2 minutes. The patient-II's NRS is shown in Table 1.

The surgeon was able to assess motor function immediately after surgery in both cases.

Conclusions: The SHAC block can provide adequate analgesia with additional advantages, such as its ease of application, irrespective of anatomical challenges and the absence of a motor block.

Table 1. Numeric rating scale (NRS) pain scores at the postoperative period of 48 hours.

Time (hr*)	Patient I NRS	Patient II NRS
Preoperative	9	7
0 (PACU)**	0	4
2	3	4
6	3	4
12	4	4
24	7	4
48	3	4

*hr: Hour; **PACU: postoperative Anesthesia Care Unit.

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