**Methods.**—Twenty-two patients were included and followed during epicondylitis treatment. The chosen patients, beside epicondylitis had a functional deficit with movement limitations of flexion. First group (12 patients) was treated with laser beam applied on painful areas. Ten patients in second group were treated with laser applied on acupuntural point SI5, LI4, LI10, L11, PC3, SI8.

**Results.**—Analysing theVAS scale data it was estimated that high statistical significance in both groups is \( P < 0.001 \). While measuring ankle movement high statistical significance is achieved also in improvement of ankle flexion amplitude in both groups (Kruskal-Wallis test, \( P < 0.001 \)). Better pain relief and increased flexion was detected in group II laser acupuncture application (Mann-Whitney \( P < 0.05 \)).

**Conclusion.**—Analysis has clearly shown positive impact of laser therapy in pain relief, and ankle movement amplitude, with better results of laser applications on acupuntural points during treatment.

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**P113-e**

**Effect of kinesiotaping in patients with chronic lumbar disc herniation:**

**Randomized-controlled, double-blind study**

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**Keywords:** Chronic low back pain; Kinesiotaping; Oswestry Disability Index; Health Assessment Questionnary

**Introduction.**—We aimed to investigate the effects of KinesioTape (KT) on patients with chronic low back pain due to lumbar disc herniation.

**Material and methods.**—Patients with low back pain more than 3 months diagnosed as lumbar disc herniation, aged between 25-45-years-old were randomized to the KT (n=32) or sham taping (n=28) group. All the patients were prescribed home exercises for lumbar disc herniation; taping was done 3 times, once a week either with KT or sham tape. Patients were evaluated at the beginning, 3rd, 6th and 12th weeks by a blinded physiatrist. Visual Analog Scale (VAS), Health Assessment Questionnary (HAQ), Oswestry Disability index (ODI) and number of paracetamol tablets taken were used for evaluation.

**Results.**—Mean age was 37.3 ± 6.6 years. The demographic and clinical features of the two groups were similar at the beginning. There was significant improvement at all the parameters at the 3rd week in both groups; but the improvement continued to 12th week (HAQ and VAS) in the taping group only. The patients in the sham group needed more analgesic after 3rd week.

**Discussion.**—Kinetaping is effective in increasing function, decreasing pain, need for analgesic medication in patients with chronic lumbar disc herniation.

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**P114-e**

**Lumbar disc prosthesis and physical and sports activities: A monocentric study with 83 patients**

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**Keywords:** Lumbar disc prosthesis; Physical and sports activities; Chronic lumbargia

**Introduction.**—Surgical treatment by disc prosthesis of chronic lumbargia for disc insufficiency is an alternative to the treatment by arthrodesis, particularly in physically active patients, eager to continue exercising their practice. In terms of efficacy on pain, both treatments have similar results; however, the treatment by prosthesis enables preserving the mobility of the operated spinal segment.

**Objective.**—To evaluate the impact of physical and sports activities on the evolution in terms of pain, quality of life and delay before resuming work.

**Methods.**—Eighty-three patients who had disc prosthesis surgery for lumbar disc degeneration between 2003 and 2008. The 83 patients with disc prosthesis surgery were distributed into three groups, according to their level of physical and sports activity: intensive physical and sports activity, regular physical and sports activity, and settled way of life.

**Results.**—After a mean follow-up of 36 months, the results in terms of pain, quality of life and delay before resuming work are all better for subjects with intensive physical and sports activity, highlighting the beneficial role of physical and sports activity, on the effects of a surgical treatment by lumbar disc prosthesis.

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**P115-e**

**Clinical effects of different therapeutic models in tendinitis supraspinatus**

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**Keywords:** Tendinitis supraspinatus; Laserotherapy; Corticosteroid infiltration; Acupuncture

Clinical effects of different therapies in tendinitis supraspinatus Leading pathological cause is tendon inflammation followed by hypervascularisation and oedema. Main clinical manifestations are pain and impaired function.

**Objectives.**—To establish therapeutic effects of three different therapeutic models: low level lasertherapy (LLT), local corticosteroid infiltration (LCI) and acupuncture (A), on subjective symptoms and objective signs, in painful shoulder syndrome caused by tendinitis supraspinatus. To compare effects of the three different therapeutic models.

**Methods.**—Randomised prospective clinical study included 36 patients with chronic shoulder pain, comparable with regard to sex, age, concomitant diseases. Diagnosis was made with regard to clinical, radiological, ultrasonographic examination. Patients were divided in three therapeutic groups (12 patients). I-group: treated with lasertherapy. Midlaser, Irradia, 904 nm, 5000 Hz. Ten points located in inflammatory region, daily dose of 10 J/cm² X days. II-group: treated with LCI/Betamethasonium Diprofos® 1 mL/in inflammatory region. III-group: treated with acupuncture(L4,G38,UB57,LI11,LI15,L116, 4 pain-tender-points), NoX. All of the patients were given pendular free-swinging exercises. Measured parameters were: local functional status-measured with Constant Murley functional scale. Wilcoxon test and Kruschall-Wallis test was used for statistical analysis.

**Results.**—Highly significant statistical difference was fortified before and after the treatment in every of the three therapeutic groups (Wilcoxon, \( P < 0.001 \)). There was no significant difference among therapeutic groups (Kruskal-Wallis, \( P < 0.05 \)).

**Conclusion.**—In patients with tendinitis supraspinatus, laserotherapy, Diprofos® and acupuncture are highly effective for functional status improving.

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**P116-e**

**Effects of lumbar orthosis on postural control strategies in subacute low back pain**

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**Keywords:** Zarzana, LBP, Exoskeletons

Some low back pain (LBP) patients demonstrate a rigid postural control strategy induced by a persistent and excessive muscular co-activation of the trunk. The aim of this study was to measure the effect of different lumbar orthosis (LO) designs for preventing the occurrence of this fear-avoidance strategy. Twelve...
healthy subjects under a no-bracing condition and eleven subacute LBP patients under three bracing conditions (no LO, a flat LO and a lordotic LO) were seated on a seesaw, positioned above a force platform. Postural control was assessed through a decomposition of the centre of pressure (CP) movements into two basic components: the vertical projection of the centre of gravity (CGv) and its difference from the centre of pressure (CP−CGv).

Compared to healthy subjects, LBP patients exhibited a rigid strategy as demonstrated by a 30% (P < 0.001) decrease in the RMS and a 41% (P < 0.001) increase in the MPF of the CP−CGv movements. Their postural control changed drastically, particularly when a lordotic LO (more congruent) was worn, and was close to the postural control observed in healthy subjects. In the future, this assessment could help target the most appropriate LO allowing prevention and treatment of this disorder.

Discussion.– A high BMI, smoking and heavy physical work are the major modifiable risk factors for lumbar disc herniation.

Further reading

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P117-e
Hand trauma: Epidemiology and functional outcome in an outpatient rehabilitation department
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Keywords: Epidemiology; Hand injuries; Rehabilitation; Functional outcome

Objective.– To examine the epidemiology and therapeutic modalities of hand injuries, the functional outcome and the professional impact in patients managed in a physical medicine and rehabilitation (PMR) department.

Methods.– We reviewed 400 consecutive medical records of patients treated for hand injuries at a department of PMR.

Results.– The average age of patients was 33.5 years ± 14.01 with a men predominance (74.8%). Eighty-six percent of patients were active and 46.2% among them performed hard jobs. Etiologies were mostly occupational and domestic accidents (42% and 37.5%). The main cause was sharp objects (36.75%). Most common types of injuries were fractures (43.8%) and tendons rupture (36%). The average duration of rehabilitation was 7.12 ± 8.18 weeks. The total follow-up time was 6.71 ± 8.9 weeks. 59.25% of our patients had good functional result. The average work-loss days were 68.9 ± 55.7 days. Predictive factors of bad functional results were the responsibility of occupational accident in cases of flexor and extensor tendons ruptures ([OR = 0.23, 95% CI, 0.05–0.98] and [OR = 0.09; 95% CI, 0.01–0.91]) and the occurrence of complications in cases of fractures (OR= 4.84; 95% CI, 1.57–14.85).

Conclusion.– Our study allowed us to highlight the requirement of a multidisciplinary management of hand injuries with PMR as corner stone.

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P118-e
Modifiable risk factors and lumbar disc herniation: Results of a case control study in 652 patients
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Keywords: Lumbar disc herniation; Smoking; Body mass index; Heavy physical work; Risk factors

Introduction.– Investigation of modifiable risk factors for development of lumbar disc herniation has been requested.

Objective.– To determine associations between modifiable risk factors (smoking, elevated Body Mass Index [BMI] and heavy physical work activities) and lumbar disc herniation, and to discuss possible mechanisms for observed associations. Understanding the underlying mechanisms may provide new insights for the prevention and treatment of this disorder.

Materials and methods.– We retrospectively reviewed 326 patients with established diagnosis of lumbar disc herniation by magnetic resonance imaging (MRI) and 326 patients without this pathology ruled out by MRI. The age, sex, BMI, work occupation and smoking status were investigated.

Results.– There was a statistically significant positive association between smoking (P = 0.004, OR = 1.75 C95% 1.25–2.45), high BMI (P = 0.00) and heavy physical work (P = 0.158, OR = 2.00 CI95% 1.43–2.76) and lumbar dis herniation. It showed that these modifiable risk factors could predict lumbar disc herniation.

Discussion.– A high BMI, smoking and heavy physical work are the major modifiable risk factors for lumbar disc herniation.

Further reading

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P119-e
Role of talectomy in management of severe equinovarus deformity in adults
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Keywords: Equinovarus; Talectomy; Difficulty walking

Objective.– Evaluate talectomy performed for adults’ severe equinovarus.

Methods.– Case series. Four adult patients (7 feet) with Charcot-Marie-Tooth hereditary peripheral neuropathy or neglected clubfoot are functionally and radiologically evaluated pre and post-surgery.

Results.– Pre-surgery mean equinus was 76°, mean varus 86°, mean foot functional index 117/230 and walking barefoot was impossible for all patients. After surgery mean equinus was 7°, mean varus 0°, mean functional foot index was 36/230. All four could walk at least few steps barefoot. No postoperative complications occurred.

Discussion.– Severe equinovarus reduces functional abilities and quality of life. Talectomy can be a good alternative when classic treatment cannot be proposed.

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P120-e
Tarlov cyst: Unusual cause of sciatica
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Keywords: Sciatica; Tarlov cyst

Introduction.– Tarlov cysts usually involve the lumbarosacral roots and are often asymptomatic. However, they may be responsible for sciatica, motor deficit and urinary disorders, even outside of a compression element associated (disc herniation, spondylolisthesis, spinal stenosis).

We report the case of a patient hospitalized in the service of physical medicine and rehabilitation functional for sciatica by a Tarlov cyst.

Observation.– Mrs. D. aged 60, diabetic, who consulted for bilateral sciatica S1, evolving for several years. The review found a spinal syndrome and no signs of disco-radicular conflict. A lumbar MRI showed a Tarlov cyst. The patient received a puncture and infiltration of the cyst under scanner. The evolution is characterized by improved lombo-radicular pain.

Discussion.– Currently Tarlov cysts, are revealed by MRI of the spine more than by the scanner and myelography through a lomboradiculgie exploration. Treatment may be medical or surgical that is aimed at symptomatic Tarlov cysts.

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