Botulinum toxin for the treatment of arthropathies
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Keywords: Intra-articular botulinum toxin; Pain; Stiffness; Mechanical and inflammatory arthropathies

Introduction.– Botulinum toxin (BTX) has long been used for the treatment of spasticity. Currently, its indications have been enlarged to the musculoskeletal system and particularly to the management of osteo-arthropathies.

Objectives.– Describe the effects of intramuscular and intra-articular BoNT-A in painful arthropathies in PRM.

Method.– Literature review.

Results.– Literature data report that intramuscular injection of BoNT-A may represent an alternative for the management of reactive periarticular muscle contractures after joint replacement surgery or of agonist/antagonist muscle imbalance. The literature also reports some controlled randomized studies showing the higher analgesic effect of BoNT-A intra-articular injections compared to corticosteroids in chronic knee pain, chronic shoulder joint pain due to osteoarticular conditions or rheumatoid arthritis, sacroiliac joint pain and refractory pain after knee arthroplasty.

The effects of BoNT-A intra-articular injection have been investigated in animal models and suggests that BoNT-A solutions may have a chondroprotective effect by limiting the alterations of the cartilage structures associated to analgesic effects through inhibition of pain mediators.

Conclusions.– BoNT-A represents an interesting therapeutic alternative both for intramuscular injection in case of periarticular muscle contractures and for intra-articular injection, although its intra-articular effects need to be better defined by further studies.

Further reading

Efficacy of transcutaneous electrical nerve stimulation (TENS) and kinesiotaping in patients with lateral epicondylitis
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Keywords: Lateral epicondylitis; Tennis elbow; Transcutaneous electrical nerve stimulation; Kinesiotaping

Introduction.– The aim of this study was to determine and compare the efficacy of TENS and kinesiotaping in lateral epicondylitis (LE).

Methods.– In this prospective-randomised, assessor blinded controlled trial, seventy-eight patients were enrolled. Patients were allocated into 4 treatment groups: Group 1 received TENS and kinesiotaping (KT), group 2 received TENS + sham KT, group 3 received sham TENS + KT and group 4 received sham TENS + sham KT. TENS was applied for 10 sessions and KT for 4 times in 10 days. Outcome measures were pain-free grip strength, pressure pain threshold, pain severity and patient rated tennis elbow evaluation for functional status. Patients were assessed at randomization, on day 10 and at 12th week of follow-up.

Results.– On day 10, TENS, KT combination treatments were statistically superior to sham group (P < 0.05). At week 12, all groups had statistically significant improvements compared to pre-treatment, however there were no significant differences among groups.

Discussion.– To our knowledge, this is the first study that evaluates TENS and KT in LE. In this study we found that KT alone or in combination with TENS was not superior to TENS, sham TENS or sham KT. Further research is needed to confirm these results.

Association between alendronate, serum alkaline phosphatase level, and heterotopic ossification in individuals with spinal cord injury
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Introduction.– Only sparse evidence exists regarding the effectiveness of oral alendronate in the prevention of heterotopic ossification in patients with spinal cord injury. The objective is to investigate the protective effect of oral alendronate intake on the appearance of heterotopic ossification (HO) in patients with spinal cord injury (SCI).
Efficacy of sacroiliac joint corticosteroid injection based on arthrographic contrast patterns

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Objective.– To determine the relationship between sacroiliac joint (SIJ) contrast dispersal patterns during SIJ injection and pain relief at 2 weeks and 2 months post-procedure.

Methods.– A retrospective review of medical records identified patients who underwent therapeutic SIJ corticosteroid injection. Fluoroscopically guided corticosteroid injections were categorized based on contrast pattern on change in NPRS values at 2 weeks and 2 months post-injection.

Discussion.– Even though there was no direct prevention of heterotopic ossification in SIJ patients by oral alendronate intake, abnormal serum alkaline phosphatase and alendronate intake (P < 0.05) as well as normal serum alkaline phosphatase and alendronate intake (P < 0.001) was found more frequently in patients with HO development and without oral alendronate intake. This evidence suggests that alendronate may play a role in preventing HO.

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P074-e Characteristics of corticosteroid utilization with spinal interventions

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Purpose.– To analyze the change in utilization of various steroids in cervical and lumbar transforaminal epidural steroid injections (TFESI), with a focus on non-particulate versus particulate steroid.

Materials and methods.– The Lifeline IMS Health database containing out-patient billing claims from 1/1/2012 to 12/31/2012 representing over 61 million lives was interrogated and a dataset was generated based on the following: commercial insurance claims on subjects under age 65 undergoing TFESI.

Results.– Steroid use in cervical (TFESI) changed from betamethasone in 2002 to dexamethasone in 2012. The most commonly used steroids for cervical TFESI in 2012 were dexamethasone (17.57%), methylprednisolone (12.84%) and triamcinolone (6.08%). Compounded steroid use changed from 2.04% in 2002 to 0.68% in 2012. The mostly commonly used steroids for lumbar TFESI in 2012 were methylprednisolone (19.70%), triamcinolone (11.15%) and dexamethasone (6.16%). Compounded steroids were used in 0.42% of procedures in 2002 and 2.07% in 2012.

Discussion.– Over the past decade, there has been a trend toward utilization of non-particulate steroids, particularly with cervical transforaminal epidural steroid injections. The data show a changing standard of care from particulate to non-particulate steroids, particularly with cervical transforaminal epidural steroid injections.

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P075-e Sever disease: An important cause of heel pain in children: Case report

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Introduction.– Sever disease refers to a calcaneal apophysitis. It is a nonarticular osteochondrosis of the calcaneal apophysis, which occurs in children and young adolescents. Sever disease is the most common cause of heel pain in the growing child. But there are not so much documentary about this condition so this case highlights the clinical features of this self-limiting disorder.

Observation.– We report a 12-year-old male presented in our out patient clinic with a 3 month history of bilateral heel pain. Pain had worsened over a 2-week period and at times, he walked on his toes. The pain was of spontaneous onset with no history of trauma. The pain was aggravated by activity and relieved

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