American Pain Society
RESEARCH
EDUCATION
TREATMENT
ADVOCACY

(336) Effectiveness of integrative treatment for lumbar disc herniation inpatients

J Lee, J Shin, I Ha, P Sang Eun, M Kim, and J Jung; Jaseng Hospital of Oriental Medicine, Seoul, South Korea

Patients with Lumbar Disc Herniation (LDH) may require hospitalization due to severe pain and consequent disability, but should consider less invasive treatment options before surgery. We report the short-term effects of an integrative treatment for LDH inpatients. We selected 208 inpatients with LDH since June 2012. The demographic characteristics, numeric rating scale (NRS), Oswestry disability index (ODI) for low back and leg pain, lumbar flexion, extension angle and straight leg raising (SLR) scales were assessed at admission (baseline) and discharge. The patients received the following treatment; herbal medicine, bee venom acupuncture, acupuncture, and Chuna. The study population had a mean age of 41.1±12.7 years, and 48 % of the patients were male. The onset of low back or leg pain was 381.9±898.4 days, and the distribution was 34 % acute (<4 wks), 17 % sub-acute (4∼12 wks), and 49 % chronic (≥12 wks). Duration of hospitalization was 20.9±12.1 days. The classification of disc herniation type by MRI was 88 (42%) protrusion, 49 (24%) extrusion and 71 (34%) protrusion with extrusion. The NRS of low back and leg pain and ODI was 5.6±2.3, 4.9±2.8 and 45.5±20.0 at baseline and 2.8±1.8, 2.7±1.9 and 27.2±14.1 at discharge, respectively. The results show a statistically significant decrease from baseline (P<0.0001). In the clinical examination, the ROM of lumbar flexion and extension, and SLR was 70.0±27.1, 15.4±7.2 and 61.3±23.0 at baseline and 80.5±16.9, 18.3±4.2 and 73.2±14.0 at discharge, respectively (P<0.0001). Furthermore, regarding patient satisfaction with the treatment, patients reported: excellent (34%), good (55%), fair (10%), poor (1%) and very poor (0%), showing that 87 % were satisfied with the treatment. In the present study, the LDH patients reported high levels of satisfaction and effectiveness of nonsurgical integrative treatment in the short term.

(337) Paravertebral catheter placement after a failed epidural in a patient with severe scoliosis

P Schmidt and V Nguyen; University of Virginia, Charlottesville, VA

A 97 year-old female was admitted to the trauma ICU with left 5-10 rib fractures, left apical pneumothorax and bilateral pleural effusions as a result of a ground-level fall. Her past medical history included osteoporosis, severe scoliosis, post-herpetic neuralgia and mycobacterium avium complex lung infection with subsequent bronchiectasis. The Acute Pain Service (APS) was consulted as the patient's oxygen saturations were progressively declining and she was unable to breathe deeply, cough or adjust positions. The APS team attempted epidural placement, which proved difficult due to her severe scoliosis. Clear loss of resistance was obtained at two separate interspaces; however the catheter could not be threaded at either level. The procedure was then abandoned as the patient could no longer tolerate positioning. On day two, the patient's oxygen requirements increased, presumably due to poor respiratory effort and poor pulmonary toilet. Given the previous failure of epidural attempts, the authors decided to place a left paravertebral catheter using ultrasound guidance. The procedure was uncomplicated and the patient received significant analgesia within 20 minutes and was able to change positions and sit upright in bed without pain. She was able to perform pulmonary toilet and was discharged from the ICU that evening. Over the next 5 days the patient reported minimal pain and her catheter infusion was weaned to zero as she transitioned to oral analgesics. She was discharged to a rehabilitation facility without complication. Good analgesia can mean the difference between life and death in certain high-risk groups. This patient's pre-existing pulmonary disease and advanced age could have very easily led to respiratory failure and severe disability or death if she did not receive adequate analgesia. This case illustrates that a paravertebral catheter placed under ultrasound guidance may be a superior analgesic option when severe scoliosis makes epidural catheter placement difficult.

F03 Anticonvulsants

(338) Efficacy and safety of pregabalin in patients with neuropathic pain due to spinal cord injury: a pooled analysis

B Parsons, L Sanin, R Yang, B Emir, and M Juhn; Pfizer Inc., New York, NY

Central neuropathic pain due to spinal cord injury (SCI) is often chronic and severe. Many pharmacologic treatments are limited by severe side effects, lack of efficacy, or lack of sufficient clinical data to support their use. Pregabalin is the only agent approved by the United States Food and Drug Administration for the treatment of SCI-related neuropathic pain. This approval was based on two large-scale, randomized, placebo-controlled trials of pregabalin, which comprise the largest published database of any pharmacologic compound for treatment of SCI-related neuropathic pain. Our analysis pools data from these two trials to explore the safety, tolerability, and efficacy of pregabalin in an expanded SCI population. A total of 174 patients received placebo and 182 received pregabalin. Patients rated pain severity from 0 = no pain to 10 = worst possible pain. Duration Adjusted Average Change in pain was significantly improved in patients receiving pregabalin compared to placebo (placebo adjusted change = -0.80; 95% CI = -1.09, -0.51; p<0.001). Mean change in pain from baseline to endpoint was also significantly improved compared to placebo (BOCF; p<0.001). The percentage of patients achieving ≥30% and ≥50% reductions in pain from baseline to endpoint was significantly greater in the pregabalin arm compared to placebo (placebo: 30 = 25.4%, 50 = 12.1%: pregabalin 30 = 44.2%, 50 = 26.4%) (LOCF; all p<0.05). Treatment-related adverse events (AEs), most commonly somnolence, dizziness, dry mouth, fatigue, edema, blurred vision, and constipation, occurred more frequently in patients treated with pregabalin compared to placebo. Patients receiving benzodiazepines concomitant to pregabalin had higher rates of somnolence than patients receiving pregabalin in the absence of benzodiazepines. Most AEs were mild-to-moderate in severity. Overall, our data highlight the safety and efficacy of pregabalin for the treatment of neuropathic pain due to SCI. Funded by Pfizer Inc.

(339) Examining the time-to-improvement of pain in patients with chronic neuropathic pain due to spinal cord injury

B Parsons and B Emir; Pfizer Inc., New York, NY

Chronic neuropathic pain due to spinal cord injury (SCI) is often severe and difficult to treat. Two randomized, placebo-controlled trials have demonstrated efficacy for pregabalin in the treatment of neuropathic pain due to SCI. These trials constitute the largest clinical database with respect to the pharmacologic treatment of SCI-related neuropathic pain. The current study examines the time-to- improvement in pain during these two trials. Daily pain scores were based on an 11-point numeric rating scale from 0 = no pain to 10 = worst possible pain. Changes in daily pain scores were analyzed using an analysis of covariance model in the intention-to-treat population (N= 343). The time-to-onset (TTO) for reduction in daily pain scores was calculated for both trials. TTO was defined as the first day pain scores for that particular day, and the following day, were significantly lower than placebo. Pregabalin treatment significantly reduced pain scores at endpoint compared to placebo in both trials. Mean placebo-adjusted improvements in pain scores at endpoint were -1.53 (LOCF; p < 0.001) and -0.78 (LOCF; p = 0.003) for the two trials. In one trial, the TTO for reduction in pain scores occurred on day one following initiation of treatment. Mean placebo-adjusted improvement in pain score on day one was -1.15 (p < 0.001) for this trial. In the remaining trial, the TTO for reduction in pain scores occurred on day two following initiation of treatment. Mean placebo-adjusted improvement in pain score on day two was -0.52 (p = 0.007) for this trial. These findings demonstrate that statistically significant and sustained pain relief occurs rapidly in response to pregabalin treatment in patients with neuropathic pain due to SCI. Funded by Pfizer Inc.