



RESEARCH
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(144) Lumbar zygapophyseal joint cyst aspiration: a case report & systematic review of literature

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Lumbar zygapophyseal joint cysts are an uncommon cause of unilateral radicular pain but the treatment of conservative versus surgical approach remains controversial. A 68 year old female presented to clinic with complaints of 3 month history of left lumbar radicular pain and objective findings of left L4-L5 lumbar zygapophyseal joint cyst on MRI. The patient underwent a lumbar zygapophyseal joint cyst aspiration and left L4-L5 transforaminal epidural steroid injection under fluoroscopic guidance. The patient had 100% resolution of left lumbar radicular pain for 7 months after cyst aspiration but began to develop similar symptoms once again. Repeat MRI of the lumbar spine showed evidence of a left L4-L5 lumbar zygapophyseal joint cyst and the patient underwent a second lumbar cyst aspiration with a left L4-L5 transforaminal epidural steroid injection under fluoroscopic guidance. A review of literature was conducted to assess the efficacy of lumbar zygapophyseal joint cyst aspiration as a conservative treatment. A search from 2000-2011 was conducted using OVID, PubMed, and Scopus which resulted in five papers that assessed the long term clinical outcomes of lumbar zygapophyseal joint cyst aspiration. Among the papers identified there was no evidence that fluoroscopically guided zygapophyseal joint cyst aspiration resulted in reduction of the need for surgical cyst excision. Though there was evidence of successful pain relief after cyst aspiration the review of literature did not show a significant reduction in lumbar zygapophyseal joint cyst recurrence. In conclusion fluoroscopically guided lumbar zygapophyseal joint cyst aspiration has proven short term pain relief benefit but has not been proven to reduce cyst recurrence or the need for eventual surgical excision.

A08 Pain Epidemiology

(145) Prevalence and impact of pain among older adults in the United States: findings from the National Health and Aging Trends Study

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In view of the large numbers of older adults with multiple morbidities, hospitalizations and surgical procedures, there is a critical need to assess the burden of pain in the older adult population. The current study sought to determine the prevalence and impact of pain in a nationally representative sample of older adults in the United States (US). Data from the 2011 National Health and Aging Trends Study were analyzed. In-person interviews were conducted in 7,601 adults ages ≥ 65 years. The response rate was 71.0% and all analyses were weighted to account for the sampling design. The overall prevalence of bothersome pain in the last month was 52.9%, afflicting 18.7 million older adults in the US. Pain did not vary across age groups ($p=0.21$) and this pattern remained unchanged when accounting for cognitive performance, dementia, proxy-responses, and residential care living status. Pain prevalence was higher in women and in older adults with obesity, musculoskeletal conditions, and depressive symptoms ($p<0.001$). The majority (74.9%) of older adults with pain endorsed multiple sites of pain. Several measures of physical capacity, including grip strength and lower extremity physical performance, were associated with pain and multisite pain. For example, self-reported inability to walk 3 blocks was 72% higher in participants with than without pain [adjusted Prevalence Ratio=1.72 (95% Confidence Interval: 1.56-1.90)]. Participants with 2, 3, and ≥ 4 sites of pain had gait speeds that were 0.03, 0.05, and 0.08 meters per second slower, respectively, than older adults without pain, adjusting for disease burden and other potential confounders ($P<0.001$). In summary, bothersome pain in the last month was reported by half of the older adult population of the US in 2011 and was strongly associated with decreased physical function.

(146) Comorbidities in chronic temporomandibular disorder patients: the links between painful and non-painful conditions

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Painful and non-painful comorbidities are prevalent in patients with temporomandibular disorders (TMD) pain. The primary objective of this study was to assess the relationship between painful and non-painful medical comorbidities, and TMD pain. Our secondary aim was to evaluate how these relationships are modified by age and gender. Sample data was obtained from the National Institute of Dental and Craniofacial Research Temporomandibular Joint Implant Registry and Repository (NIDCR's TIRR). Patients completed a questionnaire assessing a large number of medical conditions, pain characteristics (e.g., intensity, duration, frequency, and type of pain), disability, and demographics. Reproducible muscle pain during palpation was also included in this analysis. Factor analysis was performed using varimax rotation (SAS, version 9.2). A total of 500 TMD subjects aged 18 to 65 years were included in this study. Statistical analysis identified 6 major factors associated with TMD pain: 1) chronic-pain-disability (8.4% of variance), 2) psychological factors (4.3% of variance), 3) work activity (2.3% of variance), 4) endocrine-cholesterol disorders (1.7% of variance), 5) musculoskeletal-allergy-eating disorders (1.5% of variance), and 6) cardiovascular disorders (1.4% of variance). These factors are modified by age and sex. Our results indicate that painful, psychological and medical conditions are associated with TMD pain. They may reflect underlying shared mechanisms of chronic pain. This study was funded by NIH/NIDCR grants # RO1DE11252 and # DE09737-09.

(147) Pain and survival in patients with squamous cell cancer of the head and neck (HNSCC): analysis of 2,622 newly diagnosed HNSCC patients

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Pain is often one of the first signs of head and neck cancer. In the present study, we assessed the importance of self-reported pain in predicting survival outcomes of patients newly diagnosed with squamous cell cancer of the head and neck (HNSCC). Pain was assessed using the 0-10 numeric rating scale (0=no pain; 10= worst pain possible) at initial presentation to the Cancer Center, prior to any cancer treatment. Kaplan-Meier survival curves and log-rank tests were used to evaluate the effect of severe pain (score of > 7) on the time to death. The effect of severe pain on survival was assessed using multivariate Cox proportional hazards regression analysis, adjusting for age, race, sex, alcohol and smoking, comorbidities, clinical stage, cancer site, and treatment. The sample included 2,662 HNSCC patients (oral=1349; pharynx=800; larynx=513) presenting to the Cancer Center from January, 2000-December, 2009. Severe pain (score of > 7) was reported by as many as 17% of the whole sample (oral= 20.4%; pharynx=18.8%; larynx=16.1%; $p=0.135$). Severe pain significantly varied by smoking status, alcohol intake, race, comorbid conditions, and TNM staging. Overall survival time was 398.5 weeks (mean) and 458 weeks (median). Mean and median survival time among those with non-severe pain was 417 (mean) and 507 (median) weeks versus 309.7 (mean) and 304 weeks (median) among those with severe pain (log rank= 0.0001). Univariate Cox regression analysis showed that severe pain was significantly associated with survival, which persisted in the multivariate analysis (HR= 1.27; 95% CI, 1.04-1.56, $P=0.02$). Race, smoking, alcohol intake, cancer site, cancer stage, comorbidities (heart disease, lung disease) and cancer treatment were also independently associated with poorer survival, whereas sex was not associated with survival. Our findings provide important insights on the importance of pain treatment and control in the care of patients with HNSCC. Supported by NIDCR RO1DE022891.