F10 Nerve Blocks

(348) Bipolar intra-articular radiofrequency thermocoagulation of the thoracic facet joints: a case report of a new technique

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Previous methods for denervation of the thoracic facet joints involved ablating the medial branch which is variable in location. This study tests the hypothesis that of bipolar radiofrequency thermocoagulation of the thoracic facet joint capsule may provide a safe and effective method of pain control from pain from thoracic facet origin. The design of the study is prospective nonrandomized trial. After IRB approval, 9 patients were selected to have bipolar RFTC. These patients had localized mid back tenderness with pain on extension and lateral bending with no radicular symptoms. All patients had magnetic resonance imaging showing facet disease, no disc extrusions, and no cord/root compromise. These levels were injected with one cc of a solution containing 9cc of 0.5% marcaine mixed with 40 mg of depomedrol after confirmatory arthrogram. Patients who received at least > 50% relief for 8 hours were enrolled in the study. One month later, two Baylis 20 gauge 10 cm radiofrequency cannulas with a 5 mm active tip was guided by fluoroscopy into the inferior portion of the thoracic facet joint. Each cannula was placed side by side in the inferior aspect of the thoracic facet joint 0.5 cm apart. Motor testing was done at 2.5 volts and 2 Hz with no radicular symptoms noted. Then each site underwent bipolar radiofrequency at 80 degrees for 90 seconds. Main Outcome measures were as follows: Visual Analog Scale (VAS) was measured pre-intervention and 1 month post-intervention, any complications, and changes in amount of pain medication were recorded. Significant 47.6% reduction(p=0.028) in VAS was noted at 1 month. There were no serious complications and 33.3 % of patients noted decrease use of pain medication. Intra-articular bipolar RFTC of the thoracic facet joint may be a technically easier and valid method of treating mid back pain of thoracic facet origin.

(349) Cervical syringomyelia after multi-level zygapophyseal joint injections: a case report

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Zygapophyseal (ZA) joint Injections are performed to diagnose and treat axial spine pain. Though generally well-tolerated, serious complications have been described. We report a case of a 34 year-old female with syringomyelia after multi-level cervical ZA joint injections. Her history was remarkable for cervical radiculopathy and degenerative disc disease that required surgical decompression and fusion two years prior. She presented to our interdisciplinary clinic with opioid dependency and upper extremity neuropathic pain. Previously, she had received multiple injections under general anesthesia by another practitioner. On a particular visit, her right C2-3, C3-4, C4-5, C5-6, C6-7, C7-T1 ZA joints, C1, C2, C3, C4, C5, C6, C7 spinous processes, right acromio-clavicular joint, and bilateral sacroiliac joints. For her ZA injections a 22 gauge 2 ½ inch Chiba needle was used to instill 0.2 mL of bupivacaine 0.25% plus 2mg/ml of triamcinolone solution at each level. Post procedure, the patient complained of right upper extremity pain and weakness. MRI demonstrated a thin syrinx in the right paramedian spinal cord extending from the C3 to C6 level that was not present on previous imaging. No surgical intervention was undertaken. A follow up MRI showed mild progression in cavitation. Many factors may have contributed to this injury. A needle entering the spinal cord may not cause persistent pain or injury unless medication is injected. In her case, general anesthesia prevented any reactive indications of intramedullary trespass. It is unclear whether utilization of contrast would have prevented this outcome. Additionally, multiple injections eliminate any diagnostic utility and potentiate risk for anesthetic toxicity. In her case, successful medial branch blockade followed by radiofrequency neurotomy may have been more appropriate in lieu of monthly intra-articular injections. Clinicians should minimize risk factors for catastrophic outcome, including injecting under general anesthesia, frequent and extensive injections, and sub-optimal use of fluoroscopy.

(350) Splanchnic nerve neurolysis for chronic pain in lupus peritonitis

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Systemic Lupus Erythematosus (SLE) is a multiorgan inflammatory autoimmune disease. Serositis is a common morbidity in SLE as 16% of patients suffer pleuritis and pericarditis as peritoneal serositis is a rare finding. A 32 yo female patient followed for SLE admitted to the Emergency Department with severe abdominal pain, nausea and vomiting. Her abdominal CT revealed peritoneal thickening and edema and in her abdominal CT angiogram, there was a minor narrowing of the superior mesenteric artery and a minor occlusion in the inferior mesenteric artery. The departments of Internal Medicine, Rheumatology, Gastroenterology, General Surgery and Cardiovascular Surgery evaluated the patient. No interventions were planned and pulse steroid and endoxan treatment was initiated with the diagnosis of SLE peritonitis and possible intestinal involvement. The patient was consulted to the Pain Clinic because of the interactable abdominal pain. The patient complained about the upper abdominal pain radiating to the back with a numeric rating scale of 8-9. The pain did not respond to oral tramadol 50mg bid and transdermal fentanyl 25 microgram q72hr. Then the patient was scheduled for a local anesthetic block of the splanchnic nerves. Bilateral diagnostic splachnic nerve blockade was performed in the OR conditions and the pain relieved for 1 day. After an unsuccessful attempt for a splanchnic radio frequency lesioning, a neurolytic block with 96% ethyl alcohol was performed without any complications. The patient was transferred to the Internal Medicine ward with a numeric rating scale of 0. As a conclusion neurolytic splanchnic nerve blocks may be used for interactable abdominal pain in patients with SLE peritonitis.

(351) The role of long term outpatient continuous peripheral nerve catheters in the treatment of non-healing wound pain

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Non-healing wounds pose a significant problem to our nation's health care. They cause psychological suffering, and affect patients' physical health, socialization, body image, and independence. The pain associated both with the wound and its treatment can be difficult to manage. Traditionally, medications have been the mainstay of treatment, but continuous peripheral nerve catheters are proving to be an effective alternative. After an extensive literature review, we found no reports of utilizing these catheters for as long as we have, especially on an outpatient basis, or for the treatment of these wounds specifically. Despite this lack of evidence, we propose that not only can they be used for the treatment non-healing wound pain, but that they also may assist in the healing of the wound itself. We present three cases exemplifying the use of CPNCs in the treatment of non-healing wounds at our facility (two chronic and one acute), a review of the relevant literature, as well as a comprehensive discussion of the topic.