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## C-0206 - IS SPINAL CORD STIMULATION (SCS) AN ALTERNATIVE FOR THE MANAGEMENT OF REFRACTORY SUBACROMIAL IMPINGEMENT SYNDROME (SIS)? CASE REPORT

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### Resumen

**Objectives:** To describe the case of a patient who is implanted with a spinal stimulation system for the management of refractory chronic shoulder pain.

**Methods:** Subacromial impingement syndrome (SIS) is the most common cause of chronic shoulder pain. There's a 20% of patients that show an unsatisfactory result in pain control with conservative and surgical management. Since percutaneous peripheral nerve stimulation has shown success in patients with persistent pain due to SIS, SCS may be utilized to treat non-neuropathic shoulder pain attributed to SIS. A 44-year-old male presented with right shoulder pain for 7 years. He was diagnosed with subacromial synovitis and calcific tendinopathy, with no findings in the cervical spine and no evidence of radiculopathy or plexopathy on electromyographic studies. He was managed medically and surgically (2 arthroplasties) without favorable results in pain control (VAS 10) and deteriorating his quality of life. As an alternative, SCS was proposed, placing an octopolar electrode between the C4-C8 levels.

**Results:** At four weeks postoperatively, his pain was reduced by >40%, he reported full coverage of his shoulder pain area and demonstrated a better quality of life. A change was made in the programming, achieving a 60% improvement after 3 months.

**Conclusions:** To our knowledge, this is the first reported case of SCS used for the management of non-neuropathic chronic refractory shoulder pain. It is believed that the benefit is due to the stimulation in the spinal cord corresponding with the level of the roots responsible for the innervation of the shoulder muscles. Also there's evidence that patients with SIS develop central sensitization of pain and there's been a good response of neuromodulation in patients with chronic shoulder pain of other etiologies. Given the positive results in the patient, SCS could be studied as a possible alternative in patients with refractory SIS, but more trials are needed to evaluate the benefit in these pathologies.