Minimally Invasive Procedures for the Treatment of Failed Back Surgery Syndrome

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With 4 Figures

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Abstract
Failed back surgery syndrome has become unfortunately a common clinical entity. FBSS does not have one specific treatment because it does not have one specific cause. Some features are shared with chronic low back pain (CLBP) and some pathological processes are specific. Both pathologies are leading causes of disability in the industrialized world and costly medical and surgical treatments are continuously used despite their limited efficacy. Nonetheless, evidence based practice guidelines are systematically developed.

In this chapter we cautiously review the vast, complex and at times contradictory literature regarding the treatment of FBSS. Interventional Pain literature suggests that there is moderate evidence (small randomized or non randomized or single group or matched case controlled studies) for medial branch neurotomy and limited evidence (non experimental one or more center studies) for intra-discal treatments in mechanical low back pain. There is moderate evidence for the use of transforaminal steroid injections, lumbar percutaneous adhesiolysis and spinal endoscopy for painful lumbar radiculopathy and spinal cord stimulation and intrathecal pumps mostly after spinal surgery. In reality there is no gold standard for the treatment of FBSS but, these results seem promising.

Keywords: Failed back surgery; back pain; discography; nerve blocks; spinal cord stimulation; radio frequency lesions.

Introduction
Back pain is the most common cause of activity limitation in adults younger than 45 years, the second most frequent reason for visits to the physician, the fifth ranking cause of admission to hospital and the third most common cause of surgical procedures (Van Tulder et al., 2002). A letter to the British Medical Journal in October 2003, Dr Lina Talbot reported: “Every general practitioner has one – a patient who has had back surgery but hasn’t improved”. Around 20000 cases of failed back syndrome are produced each year in United Kingdom (Talbot, 2003).

Failed Back Surgery Syndrome (FBSS) does not implicate only surgery but also the medical pathway that leads to it (Fritsch et al., 1996). This syndrome constitutes a heterogeneous group of patients which have either their original cause of pain amenable to treatment or their original causes of pain non-amenable to surgery due to induced anatomical changes (Waguespack et al., 2002). Possible causes include correct operation but wrong diagnosis; correct diagnosis but wrong operation and wrong diagnosis and wrong operation; but also, correct diagnosis and correct surgery. The track to this clinical disaster is often paved with approximate diagnos-