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PSYCHOLOGICAL ASPECTS OF PATIENTS WITH BURST SPINAL CORD STIMULATION FOR CHRONIC LOW BACK PAIN

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KEY WORDS: Burst stimulation, High Frequency (HF), Failed Back Surgery Syndrome

BACKGROUND:

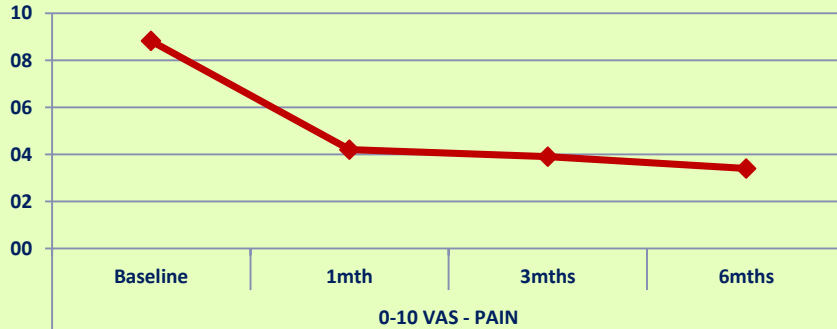
Evidence suggests that chronic pain is significantly associated with depression and anxiety onset. Self-efficacy, fear avoidance and pain catastrophizing, as well as, depression and internal control seem to be important factors in the development of persistent pain and disability. Burst stimulation in contrast to tonic stimulation might exert its main action by an attention-modulating effect. This study evaluated the effects of burst stimulation on psychological aspects in patients with chronic low back pain.

MATERIALS AND METHODS:

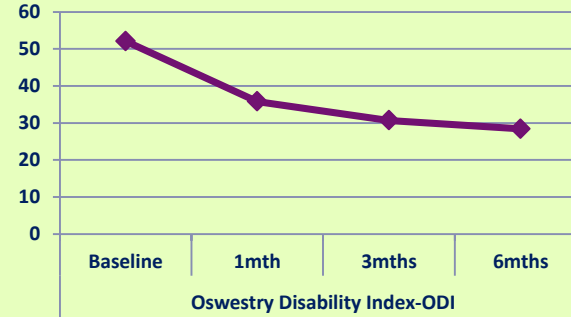
Eleven (11) patients with difficult to treat chronic low back pain were recruited. A specialized psychological evaluation was performed to rule out untreated major psychiatric comorbidity contraindicating an implant. Patient's pain rating, disability, catastrophizing, anxiety, depression, pain acceptance were assessed for up six months.

RESULTS:

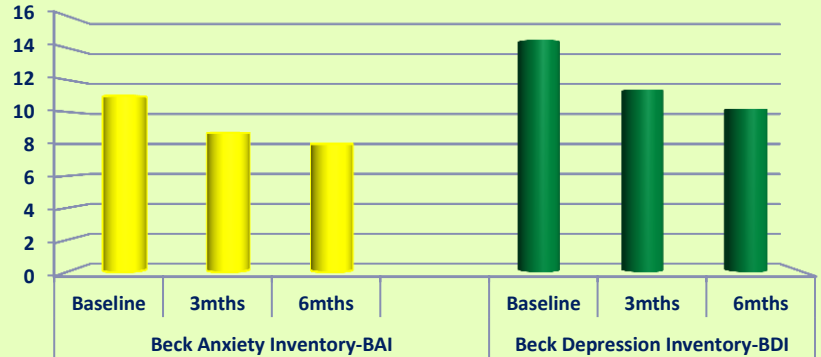
After a trial period ten patients (mean age 65.9±7.8 yrs) reported a significant improvement in VAS scores and underwent a permanent implantation. All pain and psychological measures showed significant improvement during the treatment period. Mean pain VAS of 8.8 was reduced to 4.1 at six months (p=.007)



RESULTS:



ODI at six (6) months post-implant decreased from 52 to 40 (p=.01). Concomitantly patients showed changes in psychological variables: anxiety and depression related to pain decreased and acceptance of pain increased consequently. No adverse events occurred.



CONCLUSIONS:

Decreased in VAS rating was associated with improvement in disability and positive changes in psychological variables. Moreover paresthesia-free stimulation might be more pleasing and agreeable. Further research to explore the full capacity of burst SCS are required.