BURST SPINAL CORD STIMULATION FOR LIMB AND BACK PAIN

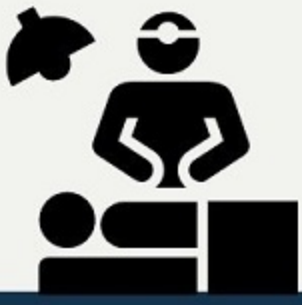
#NANRFS: *Visual Abstract Series*

Double-blind, placebo controlled study comparing the efficacy of placebo vs. tonic vs. burst spinal cord stimulation in patients with failed back surgery syndrome (N=12), failed neck syndrome (N=1), myelomalacia (N=1) and myelopathy (N=1).

Eligible patients for spinal cord stimulators Jan 2011 - Sept 2011

N = 15

Participants had spinal cord stimulators implanted which were randomly programmed to burst, tonic or placebo mode for 1 week each

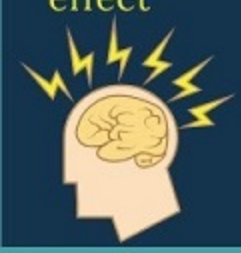


Primary outcome measure: VAS

EEGs were performed in 5 participants at baseline and at the end of each week of burst, tonic and placebo stimulation.

PLACEBO VS. TONIC VS. BURST STIMULATION

- EEG data suggests that burst stimulation could exert a clinical effect analogous to what pain patients experience in frontal lobotomies.
- Rather than being a more powerful pain suppressor, burst stimulation might therefore exert its main effect by an attention-modulating effect



In contrast to tonic stimulation, burst stimulation is significantly better than tonic stimulation for back pain relief but not for limb pain improvement

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https://www.ncbi.nlm.nih.gov/pubmed/23321375

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