

BURST STIMULATION FOR CHRONIC LOW BACK AND LEG PAIN

Colini Baldeschi G.¹, De Carolis G.², Papa A.³, Dario A.⁴, Mameli S.⁵, Innamorato M.⁶, Babbolin G.⁷, Pasquariello L.⁸, Vassetti P.⁹, Arcioni R.¹⁰, Reverberi C.¹¹

¹ Az.Osp. San Giovanni Addolorata – Roma ² Az. Osp Pisana Stabilimento Santa Chiara – Pisa ³ Ospedale Monaldi – Napoli ⁴ Fondazione Macchi Ospedale di Circolo – Varese ⁵ Ospedale Oncologico Armando Businco – Cagliari
⁶ Ospedale Umberto I – Lugo di Romagna (RV) ⁷ Casa di Cura Città di Udine – Udine ⁸ Ospedale Umberto Parini – Aosta ⁹ Ospedale San Giuliano - Giugliano in Campania (Na) ¹⁰ Azienda Ospedaliera Sant'Andrea – Roma
¹¹ Presidio Ospedaliero Oglio – Po – Vicomoscano di Casalmaggiore (CR)

Objectives

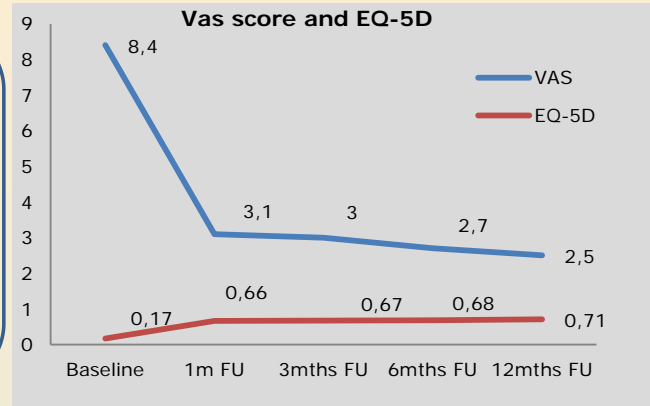
Burst stimulation could be more effective than Spinal Cord Stimulation and, potentially, could avoid some stimulation discomforts related to tonic stimulation. The primary endpoints of this data collection is the evaluation of the effectiveness and tolerability of burst stimulation in a long term follow up.

Methods

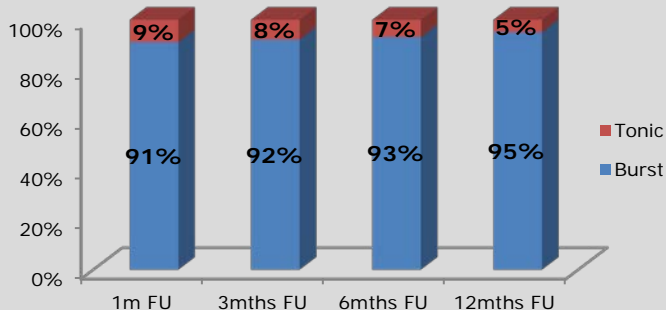
- 61 patients treated with burst stimulation in patients with chronic low back and leg pain.
- Evaluation at baseline and after 3,6,12 months from permanent implant.
- VAS, EQ-5D and adverse events were collected.
- After IPG placement (Prodigy System St. Jude Neuromodulation, Plano, TX), burst stimulation was switched on in all patients.

Results

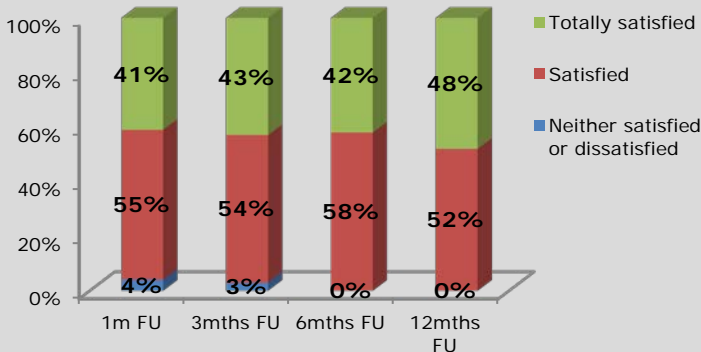
- **Significant pain decrease** at each FU ($p < 0.001$)
- **Mean pain relief of 77%**
- **Significant improvement in QoL** at each FU ($p < 0.001$)
- **No adverse event related to burst stimulation**



Stimulation preferred



Patients' satisfaction with burst stimulation



Conclusion

Burst stimulation significantly improved pain relief and quality of life in a long term follow up. Paresthesia seemed not necessary for pain relief. Burst stimulation seems to be an effective and well tolerated treatment for chronic low back and leg pain