

Peripheral Nerve

PERIPHERAL NERVE STIMULATION (PNS) IN THE TREATMENT OF CAUSALGIC PAIN: THREE CLINICAL CASES

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Introduction: The PNS efficacy has been described in many USA Clinical Reports. In this Clinical Note we would like to present three cases of causalgic pain treated with a new dedicated device project only for PNS.

Materials and Methods: Two young female patients (35 and 52), and one man (62), suffering for neuropathic pain in the arms, has been implanted with percutaneous tetrapolar linear leads and the same surgical paddle (Lightline, Neurimpulse, Rubano, Italy) on the ulnar nerve in the upper left arm and on the saphenous and superficial peroneal nerve at the ankle. The stimulation parameters was 50 Hz, 300 ms, 0.5–1 volt in the cyclic mode (10 s on and 15 s off).

Results: In either the patients we observed, during a trial phase, a good pain relief (NRS from 10 to 3) and improve of SF-36 score (from 80 to 120), associated with improve of function of the arms. After the trial phase, in all the patient has been implanted the IPG mod. LIGHTPULSE 100 (Neurimpulse, Rubano, Italy), directly conneted to the lead.

Discussion: The small dimention of IPG LIGHTPULSE 100 (volume 13cubic cm, thickness of 7 mm and weight of 26 gr), permitted us the implant in a very small subcutaneous surgical pocket in the medial part of the upper arm and lateral face of the leg.

Conclusion: The LIGHTPULSE 100 (Neurimpulse, Rubano, Italy) is smallest than the other commercialized IPG and this permitt the implant directly to the lead with comfort for the patients and low risk of leads dislocation or breakagè.

S3-Fig 1. Surgical Paddle implant

S3-Fig 2. Percutaneous imlant

Keywords: Peripheral Nerve Stimulation; Causalgic Pain; Nerve Root Trauma

Acknowledgements: INS Italian chapter for the support at this abstract submission.

Conflict of Interest: None

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