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NEW NEUROSTIMULATOR FOR PERIPHERAL NERVE STIMULATION

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Introduction: The peripheral nerve stimulation has been reported as a technique with numerous complications due to electrocatheter and implantable pulse generator. To evaluate the results of a new neurostimulation system intended to reduce the incidence of electrode fracture, and the implantation in the same painful segment of the limb.

Patients and methods: fourteen patients (8 females, 6 males) suffering from neuropathic pain due to damage of a limb nerve were implanted by neurostimulator Lightpulse 100 with quadripolar cylindrical electrocatheter (Neurimpulse, Rubano, Italy). The disease was in two patients a median damage on the carpal tunnel, in three patients a median nerve trauma, in four a ulnar trauma, in two a sural disease, in two a trauma of the tibial nerve, in one a surgical trauma of the mandibular nerve. The VAS scale was scored before and after the implantation.

Results: twelve patients but two had improvement on VAS scale. The mean current output was 0.8 mAmp. The IPG implant in the same segment of the limb was reported by patients as comfortable.

Conclusions: The generator could help solving the main problems described in literature by offering small size, light weight, minimum thickness. The output current appears to be lower than spinal cord stimulation with improvement on battery life.