

IATROGENIC PERIPHERAL NERVE INJURIES – SYSTEMATIC REVIEW, SURGICAL TREATMENT AND OUTCOME

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Iatrogenic nerve injuries are nerve injuries caused by medical interventions or inflicted by a treating physician. In this study we describe and analyze iatrogenic nerve injuries in a total of 122 consecutive patients who, after having been diagnosed with iatrogenic peripheral nerve injury, received surgical treatment at our Institution over a period of 10 years, from January 1, 2003, to December 31, 2013.

The final outcome evaluation was performed two years after surgical treatment. The results show that the most common causes of iatrogenic nerve injuries among the 122 patients under the study were the operations of bone fractures, in 29 patients (23.9%), lymph node biopsy, in 24 patients (19.7%), and carpal tunnel release, in 22 patients (18%). The most affected nerves were median nerve, in 26 patients (21.3%), accessory nerve, in 22 patients (18%), radial nerve, in 19 patients (15.6%), and peroneal nerve, in 14 patients (11.5%). In 74 (60.7%) patients surgery was performed after 6 months following the injury, and in 48 (39.3%) patients surgery was performed within 6 months following the injury. In 80 (65.6%) patients we found lesion in discontinuity, and in 42 (34.4%) patients, lesion in continuity. The distribution of the surgical procedures performed was as follows: autotransplantation in 63 (51.6%), neurolysis in 29 (23.8%), nerve transfer in 17 (13.9%), direct suture in 10 (8.2%), and resection of neuroma in 3 (2.5%) patients.

The best results were achieved in the treatment of musculocutaneous, axillary, ilioinguinal, and genitofemoral nerve iatrogenic injuries. In total, we achieved satisfactory recovery in 91 (74.6%) of the 122 patients with iatrogenic peripheral nerve injury under study, while the result was dissatisfactory in 31 (25.4%) patients.

Patients with iatrogenic nerve injuries should be examined as soon as possible at specialized centers by experts with experience in traumatic nerve injuries, so that the correct diagnosis can be reached and the appropriate therapy planned. The timing of reconstructive surgery and the technique used are the crucial factors for functional recovery; these are the factors that the treating physicians can influence.