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Peripheral Nerve Conduction In Type I Diabetic Children
And Adolescents

Nader Yousef Zadeh Khiabani

Supervisors:

Dr. Vahideh Topchi Zadeh - Dr. Siamak Shiva

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Vahideh Topchi Zadeh, Siamak Shiva, Nader Yousef Zadeh Khiabani
Department of Physical Medicine and Rehabilitation, Tabriz Children's Hospital,
Faculty of Medicine, Tabriz University of Medical Sciences, Tabriz, Iran

Abstract

Introduction: Diabetic neuropathy can cause sensory loss and limb ulcers, cellulitis, osteomyelitis, gangrene and amputation becomes. Painful neuropathy is caused in some people that can disrupt daily functioning in these patients. Because of the high prevalence of the disease and its complications that in the absence of timely detection and control can create major problems for the patient and the healthcare system, also, since diabetes is more common in children and adolescents and protests that the child begins in this study we tried to determine the electro physiologic and nerve conduction velocity in diabetic children and adolescents in Tabriz Children hospital.

Method: In this descriptive analytical study 40 type 1 diabetic patient under age 18 with at least 5 years since the last detection and without any neuropathy and a history of other diseases and concomitant use of drugs that cause neuropathy were assessed using electrophysiological testing. Motor nerve action potentials of tibial, peroneal, median and ulnar, and sural, median and ulnar sensory nerves measured in all patients and in terms of reduction or increase of the normal range were investigated.

Results: Of the 40 patients studied, 15 patients (37.5%) were male and 23 patients (57.5%) were female. At the end of the 40 patients studied, 17 patients (42.5%) had normal and 23 patients (57.5%) had electrophysiological changes that resulted, Early stage of neuropathy in 6 patients (% 15), Mild sensory neuropathy in 10 patients (% 25), Mild sensory motor neuropathy - axonal in 4 patients (10%) and Moderate sensory motor neuropathy - axonal in 3 patients (7.5%) were reported. A total of 40 diabetic patients were studied, based on electrodiagnostic

findings, 57.5% of 23 patients had abnormal findings on nerve conduction parameters were neuropathy. 9 patients in this study (22.5%) have no symptoms of neuropathy, based on neurological examination and electrodiagnostic studies were with polyneuropathy.

Conclusions: The results of this study suggest that the sum of the severity of diabetic neuropathy is directly related to age. Neuropathy in type 1 diabetic children with more than 5 years' experience is axonal with a high prevalence. The most common abnormal findings in nerve conduction parameters in the peroneal and sural nerves were to study the Mean of sural sensory loss. The neuropathy in type I diabetic children and adolescents with more than 5 years' experience is Axonal with a high prevalence.

Keywords: Diabetes Type One, Electrophysiologic Testing, Neuropathy, Nerve Conduction Velocity