Title: Electrophysiological measurements of diabetic peripheral neuropathy: a systematic review

Authors: Dheyauldeen shabeeb, Masoud Najafi, Gholamreza Hasanzadeh, Mohammed Reza Hadian, Ahmed Eleojio Musa, Alireza Shirazi

PII: S1871-4021(18)30053-5
DOI: https://doi.org/10.1016/j.dsx.2018.03.026
Reference: DSX 946

To appear in: *Diabetes & Metabolic Syndrome: Clinical Research & Reviews*

Please cite this article as: shabeeb D, Najafi M, Hasanzadeh G, Hadian MR, Musa AE, Shirazi A, Electrophysiological measurements of diabetic peripheral neuropathy: a systematic review, *Diabetes and Metabolic Syndrome: Clinical Research and Reviews* (2010), https://doi.org/10.1016/j.dsx.2018.03.026

Electrophysiological measurements of diabetic peripheral neuropathy: a systematic review

Dheyauldeen shabeeb[1,2,7], Masoud Najafi[3], Gholamreza Hasanzadeh[4], Mohammed Reza Hadian[5], Ahmed Eleojio Musa[1,6], Alireza Shirazi[1,7]

[1]Department of Medical Physics and Biomedical Engineering, School of Medicine, Tehran University of Medical Science, International Campus, Tehran, Iran.

[2]Department of Physiology, College of Medicine, University of Misan, Iraq

[3]Radiology and Nuclear Medicine Department, School of Paramedical Sciences, Kermanshah University of Medical Science, Kermanshah, Iran

[4]Department of anatomy, school of medicine, Tehran University of medical science, Tehran, Iran

[5]Brain and Spinal Injury Repair Research Center, Tehran University of Medical Science, Tehran, Iran

[6]Research center for molecular and cellular imaging, Tehran University of medical Science, Tehran, Iran.

[7]Electrophysiology Research Center, Neuroscience Institute, Tehran University of Medical Science, Tehran, Iran

Corresponding author: prof. Alireza Shirazi; Electrophysiology Research Center, Neuroscience Institute, Tehran University of Medical Science, Tehran, Iran. E Mail: shirazia@sina.tums.ac.ir

Abstract

Introduction: Peripheral neuropathy is one of the main complications of diabetes mellitus. One of the features of diabetic nerve damage is abnormality of sensory and motor nerve conduction study. An electrophysiological examination can be reproduced and is also a non-invasive approach in the assessment of peripheral nerve function. Population-based and clinical studies have been conducted to validate the sensitivity of these methods. When the