

Original Paper

Comparison of speed of walking, balance and proprioception of knee and ankle joints between diabetic and healthy subjects

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Abstract

Background and Objective: Neuropathy is a diabetic burden which can causes traumedous complications on affected indivitals. This study was done to compare the speed of walking, balance and proprioception of knee and ankle joints between type 2 diabetes and healthy subjects.

Materials and Methods: This case – contorl study was carried out on 22 diabetic and 22 healthy subjects in Shiraz, Iran during 2010. Speed of walking, repositioning of some angles in knee and ankle joints and balance time (Tandem position) were measured for all subjects. Sensory neuropathy tested using neuropathy total symptom score-6 (NTSS-6).

Results: There is no significant difference between two groups due to speed of walking, but mean time of balance in diabetic patients (32.01 ± 38.03) was significantly less than healthy subjects (71.18 ± 65.15). The average error in repositioning of joint angles in diabetic patients was more than healthy subjects ($P < 0.05$).

Conclusion: Balance time and walking speed is lower in diabetic patients which can be due to neuropathy.

Keywords: Diabetes mellitus, Balance, Joint position sense, Walking speed

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