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Poster Presentation

Affective Factors in the Event Time of Neuropathy in Diabetic Patients (Type II)

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Abstract

Introduction: Neuropathy is a common complication of diabetes that can cause disability in diabetic patients. The aim of this study was to determine of affective factors in the Event Time of Neuropathy in type 2 diabetes using Cox proportional hazards model. **Materials and Methods:** This study included 371 patients with type II diabetes without neuropathy who were registered at Fereydunshahr diabetes clinic. They were followed up (at least every 4 months) for diagnosis of neuropathy and other complications of diabetes since 2006 until March 2016. To investigate of affective factors in the Event Time of Neuropathy, we used Cox proportional hazards model. All computing was analyzed by R software (ver. 3.2.3). **Results:** At the end of 10 years of study, the cumulative incidence and prevalence of neuropathy were 30.7% and 41.6%, respectively. By Kaplan-Meier method, survival time of neuropathy was 76.6 (± 5) months after the first diagnosis of diabetes, in men and women 83.8 (± 8) and 72.7 (± 6) months, respectively. Among the patients 22% were diagnosed with neuropathy in less than four years after the first diagnosis of diabetes. By The Semi-parametric Cox regression model, Disease-Free survival of one year, two years, five years and eight years were 0.867, 0.819, 0.647 and 0.527, respectively. Also, four variables; length of diabetes period, gender, familial history of diabetes, and HbA1c in Semi-Parametric model (COX), recognized as strong risk factors for event time of neuropathy ($P < 0.05$). **Conclusion:** Neuropathy is a common complication in Iranian type 2 diabetic patients. It's related to the duration of diabetes, sex, familial history of diabetes and HbA1c. Optimal glycaemia control and regular evaluation of legs in elderly patients especially in women with positive family history, decrease the occurrence and progression of neuropathy and improve the quality of life in diabetic patients.

Keywords: Diabetes, Neuropathy, Cox proportional hazards model, Kaplan-Meier, Survival analysis

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