RESEARCH NOTE

FACTORS INFLUENCING CHRONIC DIABETIC COMPLICATIONS IN TYPE 1 DIABETES

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Abstract. Although type 1 diabetes mellitus (T1DM) usually begins in childhood or adolescence, the prevalence of complications increases in adulthood. The objective of this study was to determine the complications of T1DM and the factors that influence them. This retrospective study of 43 patients with T1DM was carried out during 2006-2007. We collected and analyzed demographic data, the clinical status of their diabetes, the complications and treatment. The subjects consisted of 16 males (37.2%) and 27 females (62.8%) with a mean age of 17.8 ± 7.1 years (range 4.1 - 37.5), a mean age at onset of T1DM of 11.3 ± 5.9 years (range 0.9 - 28.1) and a mean duration of T1DM of 6.8 ± 4.3 years (range 1.1 - 19.0). The mean HbA1c of the most recent visit of 9.6 ± 3.1% (range 5.2-17.6). Self - monitoring of blood glucose (SMBG) was performed by 21 patients (48.8%). Acute complications (diabetic ketoacidosis and hypoglycemia) had occurred in 29 patients (67.4%); chronic (microvascular and macrovascular) complications were documented in 13 patients (30.2%). Older age of onset and longer disease duration were factors associated with chronic diabetic complications (p=0.004 and 0.006, respectively). There were no significant differences in HbA1c level, frequency of daily insulin injections, and presence of SMBG between patients with and without complications. Our results suggest patients with T1DM who had older age at onset or longer disease duration are at higher risk for complications.

Keywords: type 1 diabetes, chronic complications, factors

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