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Prevalence of diabetes mellitus secondary to pancreatic diseases (type 3c)

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Introduction

Diabetes mellitus secondary to pancreatic diseases is believed to be a very rare condition. Recently a rather high prevalence of exocrine pancreatic insufficiency has been observed in the general population and especially in diabetic subjects. Thus we investigated the prevalence of diabetes mellitus due to pancreatic diseases (type 3c).

Methods

In this study we investigated 1922 patients diagnosed with diabetes mellitus who were submitted to our hospital for treatment during the last 24 months. Patient data were diligently studied and patients were reclassified diligently according to the diabetes classification as proposed by the American Diabetes Association.

Results

157 cases among 1922 diabetic subjects could be classified as type 3c diabetes mellitus (8.2%). Among these were 120 patients diagnosed with chronic pancreatitis (76.4%), 12 with hereditary hemochromatosis, 14 with pancreatic cancer and 7 with cystic fibrosis. Thus, diabetes mellitus due to chronic pancreatitis occurred in this collective in 6.2% of all diabetic subjects. Misclassification of these patients was very common. Only 45.8% were initially classified correctly. 43.3% were initially misclassified as type 2 diabetes, 6.7% as type 1 diabetes and 4.1% were not classified at all. In 17.5% of all cases alcohol abuse could be diagnosed.

Conclusions

Chronic panceatitis as a cause of diabetes mellitus (type 3c) seems more common than generally believed with a prevalence of 6.2% among the subjects studied here. Since the awareness for the diabetes type is poor, misclassification is quite frequent. A common problem seems to be the differentiation between type 2 and type 3 diabetes mellitus. Yet, the correct classification of diabetes mellitus is very important, since there are special therapeutic options and problems in patients with diabetes secondary to pancreatic diseases.