

Gender aspects suggestive of gastroparesis in patients with diabetes mellitus: A cross-sectional survey

Ram Dickman
Tel Aviv University, Israel

Background: It is suggested that symptoms related to gastroparesis are more common in female patients with type 2 diabetes mellitus (T2DM) than in males. The association between sex and prevalence of symptoms suggestive of gastroparesis among patients with T2DM in Israel has not been reported. The aim of this study was to describe the associations between sex, clinical characteristics, type, severity and prevalence of symptoms suggestive of gastroparesis in a large population of patients with T2DM in Israel.

Methods: All patients completed a demographic questionnaire and the Gastroparesis Cardinal Symptom Index. Data regarding disease duration, medications, complications, recent blood glucose and HbA1c levels, were also collected. In this nested case-control study, 173 female and 209 male patients were identified from within a cross-sectional survey of 382 patients with T2DM. Logistic and general linear modeling was used to assess associations between sex, clinical data and the presence and number of symptoms.

Results: Compared to males, female patients with T2DM had a higher body mass index (31.9 vs. 29.2; $P = 0.001$) and HbA1c (7.9 vs. 7.5; $P = 0.04$). In addition, more females suffered from peripheral vascular disease ($P = 0.02$) and ischemic heart disease ($P = 0.001$). Other disease characteristics did not differ by sex. The prevalence of nausea ($P = 0.001$), early satiety ($P = 0.005$), loss of appetite ($P = 0.002$), or having any cardinal symptom ($P = 0.001$) was significantly higher among females than males. Severity of most cardinal symptoms suggestive of gastroparesis was also higher in females than males. The presence of at least one cardinal symptom suggestive of gastroparesis was more likely among obese females with longer disease duration and poorer glycemic control.

Conclusions: Female sex was associated with higher prevalence and increased severity scoring of symptoms suggestive of gastroparesis compared to males. Among women, obesity, longer lasting disease duration and a poor glycemic control were all associated with prevalence of symptoms suggestive of gastroparesis.

dickmanr1@gmail.com