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**ASSESSMENT OF THE DIABETIC GASTROINTESTINAL NEUROPATHY  
IN PATIENTS WITH TYPE 2 DIABETES**

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**Introduction.** Diabetic autonomic neuropathy is often undiagnosed and treated inadequately which itself can lead to gastrointestinal motility disorder and closely linked with cardiovascular autonomic neuropathy. The relationship between various gastrointestinal symptoms and the degree of motor-evacuation dysfunction, measure of glycemic control which could serve as clinical markers or predictors of gastro neuropathy in patients with diabetes mellitus type 2 is not well understood or is ambiguous.

**Aim:** was to evaluate the prevalence of gastrointestinal neuropathy symptoms in patients with type 2 diabetes mellitus.

**Materials and methods.** This was a cross-sectional study of gastrointestinal symptoms in patients with diabetes mellitus. The sample size was 23 patients with type 2 diabetes mellitus. The study was conducted December from 1 to 20, 2023 in the Endocrinology department of the 1st City Clinical Hospital in Minsk. Data collection according to the questionnaire and scale measurement technique using the PAGI-SYM. The questionnaire consists of 20 questions combining 6 subscales: heartburn/regurgitation (7 questions), nausea/vomiting (3 questions), feeling of postprandial fullness/early feeling of fullness (4 questions), meteorism/bloating (2 questions), pain in the upper abdomen (2 questions), pain in the lower abdomen (2 questions). It assessed the symptoms according to a scale 0-5 points, where 0 means no symptoms, 1 is a minor symptom, 2 is a mild symptom, 3 is a severe symptom, 5 is more severe symptom. The sum of all points determines the degree of severity: mild degree (1–11 points), moderate degree (12–22 points), severe degree (>23 points).

**Results and their discussion.** All patients had symptoms of gastrointestinal neuropathy of varying severity, with a predominance of patients with severe GIN – 60.9% (n=14); a mild degree was detected in 21.7% (n=5) and moderate degree in 17.4% (n=4). 23 patients with diabetes mellitus type 2 (52.2%, n=12 males), mean age: 60.5 (50.5-71.0) yrs, mean duration of DM: 16.0 (7.5-20.0) yrs, mean HbA1c level: 11.6 (9.6-19.9) %. Among all symptoms, feeling or appearance of enlarged abdomen (score of 59) and loss of appetite (score of 59) showcased to be the most common symptom presented in patients ( $\chi^2 = 0,546$ ;  $p < 0,001$ ). The next most common complication was heaviness in the stomach (score of 51). The patients being categorized into two main categories: mild (n=5) vs. severe (n=14). The results showed that the patients of the mild category were comparatively younger with a mean age of 54 (48.0-65.0) vs. 62.5 (58.0-71.0) years; with shorter disease duration – 7.5 (4.0-20.5) vs. 16.0 (9.0-20.0) years. The age of manifestation of type 2 DM with a mean age of manifestation of type 2 DM 47.0 (44.0 – 61.0) years in the mild category is less than the mean age of manifestation of type 2 DM 49.0 (47.0 – 54.0) years in the severe category, but the HbA1c is higher in the mild category than the severe category (15.1 (10.9-21.8) vs. 9.3 (8.35-11.25%).

**Conclusions.** According to the results obtained the presence of feeling or appearance of enlarged abdomen or loss of appetite (the most common symptoms), confirms the progression of type 2 diabetes mellitus to gastrointestinal neuropathy ( $\chi^2 = 0,546$ ;  $p < 0,001$ ). Early diagnosis of gastrointestinal neuropathy in type 2 diabetes mellitus patients can help treat patients timely and avoid further deterioration of the motor functions of the stomach.