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Noorul Haq F.N., Ahamed Faleel A.F. PREVALENCE OF UPPER GASTROINTESTINAL SYMPTOMS IN MALES AND FEMALES

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Actuality. Gastroesophageal reflux disease (GERD) shows significant sex-based differences in prevalence and risk factors. A large Taiwanese survey of 121,583 participants (aged 30–70 years) found a higher GERD prevalence among females, linked to factors such as older age, diabetes mellitus, hypertension, smoking, alcohol use, low systolic blood pressure, elevated haemoglobin, low fasting glucose, high total cholesterol, low HDL-C, and low uric acid. A Brazilian study similarly reported more frequent GERD symptoms in females. Emotional distress, more common in women, and oestrogen decline with age may weaken gastric defences, contributing to Upper Gastrointestinal (UGI) Symptoms in women.

Goal: this study aims to assess sex-based differences in the prevalence of Upper Gastrointestinal (UGI) symptoms among the Students of Belarusian State Medical University.

Materials and methods. A cross-sectional survey was conducted among university students using a Google Forms questionnaire. The questionnaire comprised a diverse set of questions, including original questions written by us as well as symptom-related questions adapted from 'The Gastrointestinal Questionnaire' used in the Cappadocia cohort. Data collected included gender, age, body mass index (BMI), meal regularity, smoking status, alcohol and spicy food consumption, and anaemia. Participants selected the symptoms they had experienced from the list. Responses were divided by gender and analysed for differences in symptom prevalence.

Results and their discussion. Sixty responses were obtained from the survey. Thirty-nine female students were compared to twenty-three male students for the Assessment of Upper Gastrointestinal symptoms. The BMI in females was 23.05 (19.62; 26.04), whereas in males – it was 22.28 (20.29; 26.28). As for the regularity of meals, 65.0% of males had taken regular meals (n=15), whereas in females, it had only accounted for 38.46% (n=15) (χ 2= 4.147, p= 0.042). Anaemia was more prevalent in females than in males (χ 2= 6.095, p= 0.014), which could be a potential contributor to GI distress. Students reported their Upper Gastrointestinal symptoms – such as, gastric pain, bloating, belching, nausea, early satiety, vomiting and heartburn - with females exhibiting a higher mean symptom count (3.05) compared to males (2.0) (p<0,05). Among spicy food consumers, 11.4% of females experienced daily symptoms, in comparison to 5.3% of males. Females had lower Systolic and Diastolic blood pressure in comparison to males (p= 0.0001 and p=0.0002, respectively). Additionally, a positive correlation was noticed between people who consume alcohol and those who smoke (r=0,51, p<0,05), as well as between people who ocassionally take Nonsteroidal Anti-inflammatory Drugs and the severity of anaemia. (r=0,56, p<0,05).

Conclusions. This study demonstrates a clear sex-based disparity in upper gastrointestinal (UGI) symptoms among medical students, with female participants exhibiting significantly higher symptom prevalence and severity compared to males. Females exhibited lower baseline systolic and diastolic blood pressure and had a higher prevalence of anaemia. Together, these factors may reduce gastric perfusion, diminish oxygen-carrying capacity, leading to an exacerbation of hypoxia of gastric mucosa, which thereby increases the susceptibility to UGI symptoms.