

The choice of treatment method in patients with foreign bodies in the gastrointestinal tract – a retrospective analysis.

Introduction: Foreign bodies (FB) in the gastrointestinal tract as a result of their swallowing are a significant problem for the medical staff in the context of therapeutic, as well as diagnostic decisions. Especially because of the rare occurrence of such cases in a single medical centre. The choice of the appropriate method of diagnosis and treatment depends on the medical data, the specificity of the case (type of FB, its location in the gastrointestinal tract, accompanying complications and pathologies), the doctor's experience and his prognostic skills. At the moment, there are no clearly defined guidelines on how to handle patients with such a problem, as well as a probability model of the occurrence of critical complications (such as life-threatening perforation of the gastrointestinal wall). New guidelines would contribute to the standardization of diagnosis and treatment, and thus improve the quality of care for this group of patients.

Aim: To determine the criteria for the management of patients with FB in the gastrointestinal tract.

Material and methods: Data were collected during a retrospective analysis of anonymized medical records (medical history, imaging documentation, postoperative protocols, etc.) of patients with foreign bodies in the gastrointestinal tract, hospitalized in the Department of General Surgery of the Remand Prison in Bydgoszcz. The documentation of 604 patients treated in 2014-2020 was used for the analysis. The collected data was analyzed in terms of: type and size of foreign bodies, time from ingestion to their possible excretion, type of treatment, occurrence of perforation of the gastrointestinal tract, age, sex, occurrence of mental disorders.

Results: 1.49% of subjects were women. The mean age of the patients was 30.73 ± 8.18 years. Foreign bodies swallowed by the subjects were characterized by an average length of approx. 85.48 ± 47.78 mm (range 10 - 250 mm). 5.30% of the foreign bodies were ≥ 25 mm wide. 43.20% of foreign bodies presented sharp edges. In 3.16% of cases there was perforation of the gastrointestinal tract. 61.92% of the subjects were treated psychiatrically. Foreign bodies ≥ 80 mm in length were qualified for surgical removal (gastroscopy or laparoscopy). Foreign bodies ≥ 105 mm in length significantly increased the risk of gastrointestinal perforation. Smaller foreign bodies were often excreted spontaneously.

Conclusions: 1) The length of the foreign body and its location at the time of X-ray diagnostics are of decisive importance when making a therapeutic decision. 2) If a foreign body is found in the intestine, it is recommended to carry out regular observation in out-of-hospital conditions (foreign body < 80 mm long) or in-hospital conditions (foreign body ≥ 80 mm long) until its expulsion or until the 21st day when surgery should be considered in order to remove it. 3) If a foreign body is found in the stomach, out-of-hospital follow-up is recommended if the swallowed foreign body is < 80 mm long. If its length exceeds 80 mm and its edges are sharp, urgent gastroscopy is recommended, while if the foreign body does not have sharp edges and/or its diameter is ≥ 25 mm and/or it is floating, it is recommended to perform gastroscopy in scheduled mode. In the case of its unfavorable course, surgery is recommended. 4) If a foreign body is found in the esophagus, it is recommended to undergo laryngological and thoracic surgery consultation as well as endoscopic removal of the foreign body in a high-reference multi-specialty center.

Key words: foreign body, removal of foreign bodies, gastrointestinal tract,