

Summary

Percutaneous endoscopic gastrostomy is a widely used method of nutrition delivery for patients with long-term insufficiency of oral intake. Buried bumper syndrome belongs to severe complications of this method, in which the internal fixation device migrates along the tract of the stoma outside the stomach. Even though all the precautions are respected – including adequate positioning of the outer fixator – this complication does occur. The buried bumper syndrome can be managed surgically or endoscopically in many modifications. Published series of this syndrome are not robust enough; they differ in its incidence. Some published results indicate increase of the incidence in time, however there is no explanation for this change. Until now there is no universal diagnostic and therapeutic algorithm based on the degree of disc submersion determined by reliable and feasible methods. Dissection of the overgrowing tissue is the determinant for a successful endoscopic therapy, nevertheless methods described until now are clumsy and bear a significant risk of complications such as bleeding and perforation.

Forty cases of the buried bumper syndrome in 38 patients were identified in this study based on the retrospective analysis of 1248 procedures with percutaneous endoscopic gastrostomy implantation during 11-year period. This represents the largest series ever published on this topic; incidence was 3,2 % and was rising in time – it has almost tripled between subsequent five-year intervals (from 1,8 to 5 %). The explanation for the increase might be either more frequent detection of this syndrome during planned extraction of the cannula or during the gastroscopy carried out for another indication, often in patients with already limited or no use of the stoma. The new classification of the buried bumper syndrome is based on clinical, endoscopic and ultrasonographic data and covers all the spectrum of the severity of this complication. Endoscopic component of this classification was validated with a high inter-observer agreement ($\kappa=0.93$). Abdominal ultrasound showed favourable parameters in the localisation of the buried bumper inside the stomach (sensitivity, specificity, positive and negative predictive value are 100%, 90%, 92% and 100%, respectively). Patients can be stratified based on the simple algorithm for the conservative approach, endoscopic or surgical therapy. Effective discision of the overgrowing tissue can be achieved by a papilotome (as a standard endoscopic tool) introduced externally via the stump of the buried gastrostomy cannula without increased risk of complications in comparison to the other methods. The author published this method for the first time in the English literature.