Gastric tube for oesophageal dilation

Treatment and enteral feeding in infants, children and adults with benign oesophageal stenoses

Technology

Benign oesophageal stenoses (narrowing of the oesophagus, which is not caused by tumours) occur in adults with an incidence of 1.1 per 10,000 person-years (Ruigómez, 2006). The incidence in children is unknown. The causes are local noxa such as gastro-oesophageal reflux, previous accidental cauterisation, following radiation therapy, following oesophageal sclerotisation or in the case of eosinophilic oesophagitis, which is being diagnosed ever more frequently. In the field of paediatrics, up to 30% of infants also suffer postoperative oesophageal stenosis following surgical treatment for atresia of the oesophagus.
The standard treatment provides endoscopic widening for 1-2 minutes by means of a balloon catheter or bougie under general anaesthesia. In the case of severe stenosis, the procedure must be carried out weekly in the beginning, which leads to high costs, marked stress for the patient and an elevated complication rate. Enteral feeding is often very difficult and is only possible via percutaneous endoscopic gastrotomy tube (PEG tube) or not at all.

Innovation

- Outpatient treatment by means of an endoscopically-fitted gastric tube for oesophageal dilation, which is left in situ for several weeks
- Daily widening of the stenosis for several minutes by the patient themselves, as well as simultaneous enteral feeding.
- Prevention of repeated general anaesthesia
- Tolerance and practicality was demonstrated in the context of off-label use of an angioplasty catheter in more than 30 patients.

Application

- At the time of diagnosis, the gastric tube for dilation with several lumens is fitted endoscopically so that the balloon lies in the region of the oesophageal stenosis.
- Verification of the position of the gastric tube (in the stomach) using X-ray contrast to ensure the food accesses the stomach safely.
- Operation by the patient (or patient's parents) several times a day during which time the balloon is unfolded by the injection of fluid and the stenosis is widened.
- An additional lumen is available for local pain relief or the use of "scar treatments" as part of clinical trials.

Innovator

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Fields

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