Retrograde dilatation via gastrostomy of a proximal esophagoileal anastomotic stricture in an infant with esophageal atresia

Esophageal stenosis is a common complication after surgical repair in children with esophageal atresia. The usual treatment is endoscopic dilatation. If this fails, reoperation is needed.

A male infant presented with type 1 esophageal atresia [1]. A gastrostomy was performed on day 1 after birth, definitive repair being delayed because of the long gap. Three months later an ileoceco-coloplasty was performed, the ileum being anastomosed to the cervical esophagus, enabling oral feeding. At the age of 5 months, the child was admitted for malaise. Barium studies revealed a dilation of the proximal esophagus above a narrow esophagoileal anastomotic stricture (**• Fig. 1**).

Esophagoscopy using a neonatal endoscope (Pentax EG1870K, 5 mm diameter) confirmed the stricture. Repeated attempts to pass a guide wire through the stricture failed. We therefore tried to perform a retrograde dilation through the gastrostomy orifice. The endoscope was introduced from the stomach upwards to the ileocecocoloplasty, close to the stricture. A guide was pushed retrogradely through the stricture (**•** Fig. 2) to the mouth, and dilation was performed with Savary–Wizard dilators (diameter 5 and 7 mm).

The child is now aged 34 months and is growing with no recurrence of the stricture.

This case report shows that retrograde dilatation – requiring preexisting gastrostomy – represents an alternative when esophagoscopy fails. The assumption is that it is easier to introduce the guide wire in a retrograde manner, following the direction of progressive narrowing of the stricture. Concurrent esophagoscopy and transgastrostomy gastroscopy have already been used in adult patients with postradiotherapy eosophageal stenosis [2,3]. To the best of our knowledge only one pediatric experience has been reported, that of a 4-year-old boy presenting with a distal esophageal stricture follow-



Fig. 1 Barium study showing a stricture of the ileocecocoloplasty.

ing fundoplication that was dilated in a retrograde manner via a gastrostomy orifice [4]. Our case report demonstrates that retrograde dilation through gastrostomy can be efficient in the treatment of narrow proximal esophageal strictures, even in young infants.

Endoscopy_UCTN_Code_TTT_1AO_2AH

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Fig. 2 The infant in the operating room, with one end of the guide and dilator entering through the orifice of the gastrostomy, the other end coming out through the mouth.

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DOI 10.1055/s-2008-1077649 Endoscopy 2009; 41: E10 © Georg Thieme Verlag KG Stuttgart · New York · ISSN 0013-726X

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