A novel method for closure of a persistent gastrostomy feeding site fistula

A 22-year-old man with congenital intestinal malrotation and autoimmune enterocolitis, previously requiring enteral nutritional support for many years, presented with persistently leaking gastric contents 24 months after the removal of a gastrostomy. Attempted closure with three endoscopic clips at the internal opening 8 months earlier had been unsuccessful.

A contrast study confirmed persistent fistula with a short tract (Fig. 1). While the patient was under general anesthesia, a further procedure was performed comprising closure with silver nitrate cauterization and a 10-mm hexagonal nitinol clip (Padlock-G Clip; Aponos Medical, Kingston, New Hampshire, USA). The internal opening was identified endoscopically (Fig. 2 a). The external opening was infiltrated with 7 mL of 1% lignocaine as a local anesthetic. The tract just allowed passage of a 3-mm-diameter silver nitrate (75% w/w) stick for cauterization, with the depth confirmed endoscopically (Fig. 2 b). The inner opening and surrounding tissue were drawn into a deployment pod attached to a standard esophagogastroduodenoscope (Olympus, Tokyo, Japan) (Fig. 2 c). The 10-mm hexagonal nitinol clip with six inner prongs was then deployed over this pod, with good immediate effect (Fig. 2 d, Fig. 2 e). The patient reported mild, self-limiting discomfort at the site for 3 days after the procedure, but there was no persistent drainage or abdominal pain at follow-up at 6 months. Persistence of a gastrocutaneous fistula, defined as the leakage of gastric contents for at least 1 month after the removal of a gastrostomy tube, occurs in up to 34% of patients [1]. Previously, surgical closure was required, but more recently, multiple endoscopic methods with varying efficacy have been described. These include chemical or electrical cauterization in combination with clip closure [2], endoscopic suturing [3], fibrin glue placement [4], and over-the-scope clip placement [5]. This is the first report to describe the use of a 10-mm hexagonal nitinol clip in combination with silver nitrate cauterization as an effective option for the closure of persistent gastrocutaneous fistula at a gastrostomy site. Apart from causing transient discomfort, the method appears to be safe.
Competing interests: None

Mayur Garg1, Ana Wilson1,2, Simon Gabe2,3, Brian P. Saunders1,2, Siwan Thomas-Gibson1,2

1 Wolfson Unit for Endoscopy, St. Mark’s Hospital, Watford Road, Harrow, Middlesex, United Kingdom
2 Imperial College, London, United Kingdom
3 Lennard-Jones Intestinal Failure Unit, St. Mark’s Hospital, Watford Road, Harrow, Middlesex, United Kingdom

References

Bibliography
DOI http://dx.doi.org/10.1055/s-0034-1393588
Endoscopy 2015; 47: E629–E630
© Georg Thieme Verlag KG
Stuttgart · New York
ISSN 0013-726X

Corresponding author
Siwan Thomas-Gibson, MD
Wolfson Unit for Endoscopy
St. Mark’s Hospital
Watford Road
Harrow, UK HA13UJ
United Kingdom
Fax: + 44-208-423-3588
s.thomas-gibson@nhs.net