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TRICK OF THE TRADE

LBet 88: a new device for outpatient treatment of selected grade III hemorrhoids

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Introduction

Suture hemorrhoidopexy (SH) with or without dearterialization is an inpatient procedure used for Goligher grade III hemorrhoids [1, 2] including hemorrhoids with an external component or redundant internal pile which perhaps are not well treated with this technique. LBet 88 (Sapimed SpA, Alessandria, Italy) is a new device for performing SH in selected patients with third-degree hemorrhoids in an outpatient setting. The aim of our study was to assess the effectiveness of LBet in this patient population.

Materials and methods

Inclusion criteria were patients with an American Society of Anesthesiologists (ASA) [1, 2] of who had Goligher grade III hemorrhoids and up to 4 symptomatic piles, without any external component, excluding piles that are not easily reducible, defined as fibrous inelastic redundant piles in our single pile classification (SPC) [3]. The procedure was performed with the patients in the lithotomy position and local anesthesia using the Selvasekar [4] modified technique. This consists of injecting 2 ml of ropivacaine 3.75 mg/ml in each quarter and 5 ml of ropivacaine 3.75 mg/ml over the levator ani muscle to obtain a block of the levator ani nerve in order to gain better anal relaxation [5].

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LBet 88 (Fig. 1) is 75 mm in length and 25.6 mm in diameter, with an elliptical operating window that permits the visualization of the mucosa 33 mm from the anal verge. An ergonomic closed tip allows a gentle introduction and keeps feces out of the operative field. The circular section of the anoscope facilitates protrusion of the redundant mucosa and submucosa layers through the operating window. A marker at 50 mm from the anal verge suggests where to start the suture.

The first Z stitch (Fig. 2) (absorbable Vicryl 2-0 with a 5/8 shaped needle) is placed at the level of the marker point on the anorectal junction. From here, 2 or 3 running sutures are applied in a caudo-cranial direction and tied to the first knot; then, a second series of 3 or 4 running sutures is applied in the conventional cranio-caudal direction down to and not including the sensitive anodermal mucosa at the dentate line and tied again. The final result is a concertina firmly fixed in at the level of the anorectal junction (Fig. 3).

Results

Between January 2012 and March 2015, we treated 78 patients (28 females, median age 52 (23–80) years). According to SPC, the total number of piles treated was 221: 88 (39.8%) were Goligher II and 133 (60.2%) were Goligher III. All patients treated had at least one III Goligher grade pile. The median number of piles treated per patient was 2.83 (range 1–4 piles). No change in surgical or anesthesiological strategy was needed. No intra- or perioperative complications were reported. No patients reported urinary retention. The long-term complication rate was 5.12% and complications consisted of additional surgery for bleeding ($n = 1$), minor bleeding ($n = 2$) and external hemorrhoidal thrombosis ($n = 1$). The median use

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Fig. 1 LBet 88

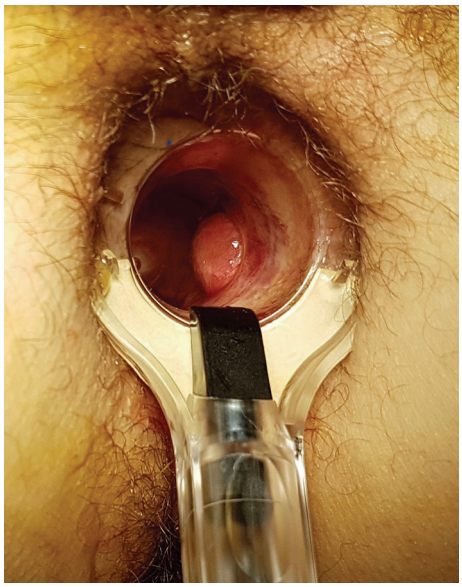

Fig. 2 Protrusion of mucosal and submucosal layers

of self-administered painkiller was 2.8 days (range 0–10 days). Two piles relapsed (0.90%) at a mean follow-up of 19.83 months (range 2–40 months), and two (2.56%) patients referred sporadic minor bleeding during attempts to defecate but no prolapse.

Discussion

To treat symptomatic piles, we usually use rubber band ligation, performing a tailored treatment only where necessary [6]. There is no protrusion through the operative window of this new anoscope if there is no hemorrhoidal pathology. Therefore, the device helps in choosing where to treat. The "up and down" hemorrhoidopexy suture, in our opinion, glides better than a long continuous suture.

Hemorrhoid size and type criteria are not only the technical limit of this device but the limit of hemorrhoidopexy itself. In conclusion, hemorrhoidopexy carried out with the new LBet 88 anoscope is a good option for treating selected Goligher grade III hemorrhoids in an outpatient setting.

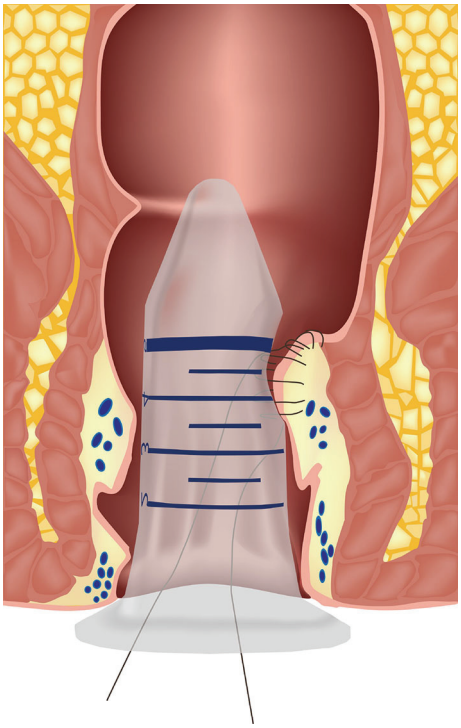

Fig. 3 Hemorrhoidopexy

Compliance with ethical standards

Conflict of interest The authors declare that they have no conflict of interest.

Ethical approval All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

Informed consent Informed consent was obtained from all individual participants included in the study.

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