Cutting-edge novel device in the treatment of obesity



A 57-year-old patient with arterial hypertension, dyslipidemia, and obesity grade I (BMI 34.9 kg/m², 95 kg, 165 cm) underwent a new and unique sleeve gastroplasty procedure for weight reduction (**> Video 1**).

A novel device is used to perform the sleeve gastroplasty (> Fig. 1). The specialized device is inserted into the patient through an overtube, and a thin nasal endoscope is passed through the device into the stomach. Under visual guidance, the appropriate position in the stomach (antrum) is identified, and a vacuum (-84 kPa) is initiated. Subsequently, the nasal endoscope is removed, and the device channel is closed to maintain the vacuum. In this phase of the procedure, full-thickness suturing of the gastric wall is performed using a circular stitch (> Fig. 2). The device automatically terminates the stitch, and it is withdrawn through the overtube. The sutures are then inspected using an endoscope. This process is repeated 4-5 times, depending on the appearance of the sleeve gastroplasty. After completing all 4-5 sutures, the resulting sleeve is inspected, including checking for possible complications such as bleeding or perforation. The procedure is performed under general anesthesia, with observation continuing until the following day. The average duration of the procedure is 40 minutes.

After three months, the patient achieved a weight loss of 8 kg (8.4% total body weight loss) without any signs of complications. This novel device appears to be a promising new method for weight reduction that is fast, feasible, and safe (**> Fig. 3**). Randomized studies comparing its effectiveness to other devices intended for endoscopic sleeve gastroplasty, where the percentage of total body weight loss at 6 months averages around 15%, are now needed [1].

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Video 1 Endoscopic sleeve gastroplasty using a novel device.



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Competing interests

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Fig.2 Assembled device.



Fig.3 Device introduction via overtube.

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 Hedjoudje A, Abu Dayyeh BK, Cheskin LJ et al. Efficacy and safety of endoscopic sleeve gastroplasty: A systematic review and metaanalysis. Clin Gastroenterol Hepatol 2020; 18: 1043–1053.e1044. doi:10.1016/j. cqh.2019.08.022

Bibliography

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CORRECTION

Correction: Cutting-edge novel device in the treatment of obesity

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In the above-mentioned article, the statement for the conflict of interest has been corrected. Correct is: The E-Video was supported by Nitinotes, the company that developed this device. This was corrected in the online version on March 21, 2024.