

Extending limits: the longest recorded duodenojejunal bypass implant

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A 59-year-old patient with type 2 diabetes, dyslipidemia, and hypertension underwent the placement of a duodenojejunal bypass (EndoBarrier; GI Dynamics, Boston, Massachusetts, USA). At the time of the endoscopy procedure, the patient weighed 110 kg and was 172 cm tall, resulting in a body mass index (BMI) of 37.3 kg/m². The procedure, performed under general anesthesia, concluded without complications. Postoperatively, the patient was prescribed 40 mg of proton pump inhibitors (PPIs) twice daily and advised to avoid fiber. Early side effects included daily nausea (five to eight episodes), and epigastric pain was managed with antiemetics and ongoing PPI use. One month later, an endoscopy confirmed the duodenojejunal bypass was correctly positioned but revealed ulcers at the device's sharp edges. Despite initial challenges, symptoms improved significantly within three weeks. After 12 months, the patient had lost 30 kg, reducing their (BMI) to 27.3 kg/m². The patient chose to keep the bypass despite the conclusion of the study and against medical advice about potential risks.

Over the years, the patient maintained a stable weight of 80 kg and glycemic control with an HbA1c of 41 mmol/mol, managed on 20 mg of PPI and 1000 mg of metformin daily.

Eight years later the diagnostic gastroscopy revealed a torn upper part of the duodenojejunal bypass and a reduced sleeve with the surrounding mucosa irritated. This prompted a planned extraction procedure under general anesthesia, which proceeded without major complications. Following the removal of the duodenojejunal bypass, only minor tears in the esophagus and small ulcers were detected. The patient was discharged the next day without complications and remained stable at a follow-up 1 month later (► **Video 1**).

Despite various challenges noted in studies, the duodenojejunal bypass demonstrates significant potential for weight loss and improved management of type 2 diabetes. Our case study features the longest-known implanted duodenojejunal bypass, which maintained its effectiveness even after the upper part was damaged and the sleeve shrank from the original 60 cm to 9.6 cm (► **Fig. 1**, ► **Fig. 2**). This likely contributed to sustained weight management and the remission of type 2 diabetes. Although the device removal can be challenging, the procedure in this instance proceeded smoothly. Nevertheless, technical improvements are essential to reduce these complications and enhance patient safety [1–3].

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Conflict of Interest

The authors declare that they have no conflict of interest.

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► **Video 1** Extending limits: the longest recorded duodenojejunal bypass implant shows improved body mass index and glycated hemoglobin after 96 months.



► **Fig. 1** Extracted device I.



► **Fig. 2** Extracted device II.

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