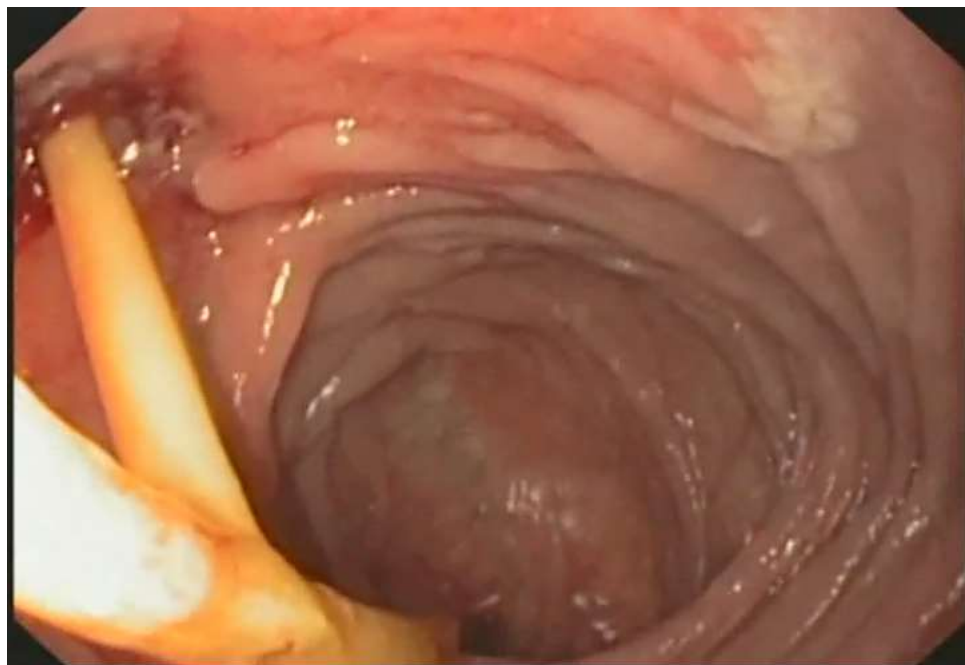


# Endoscopic Kehr's T-Tube placement to treat persistent large gastro-cutaneous fistula after One Anastomosis Gastric Bypass: Video Demonstration

Niccolo' Petrucciani, Francesco Martini, Michel Queralto, Jan Marc Combis, Jane Buchwald, Arnaud Liagre



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CONFLICT OF INTEREST DISCLOSURE

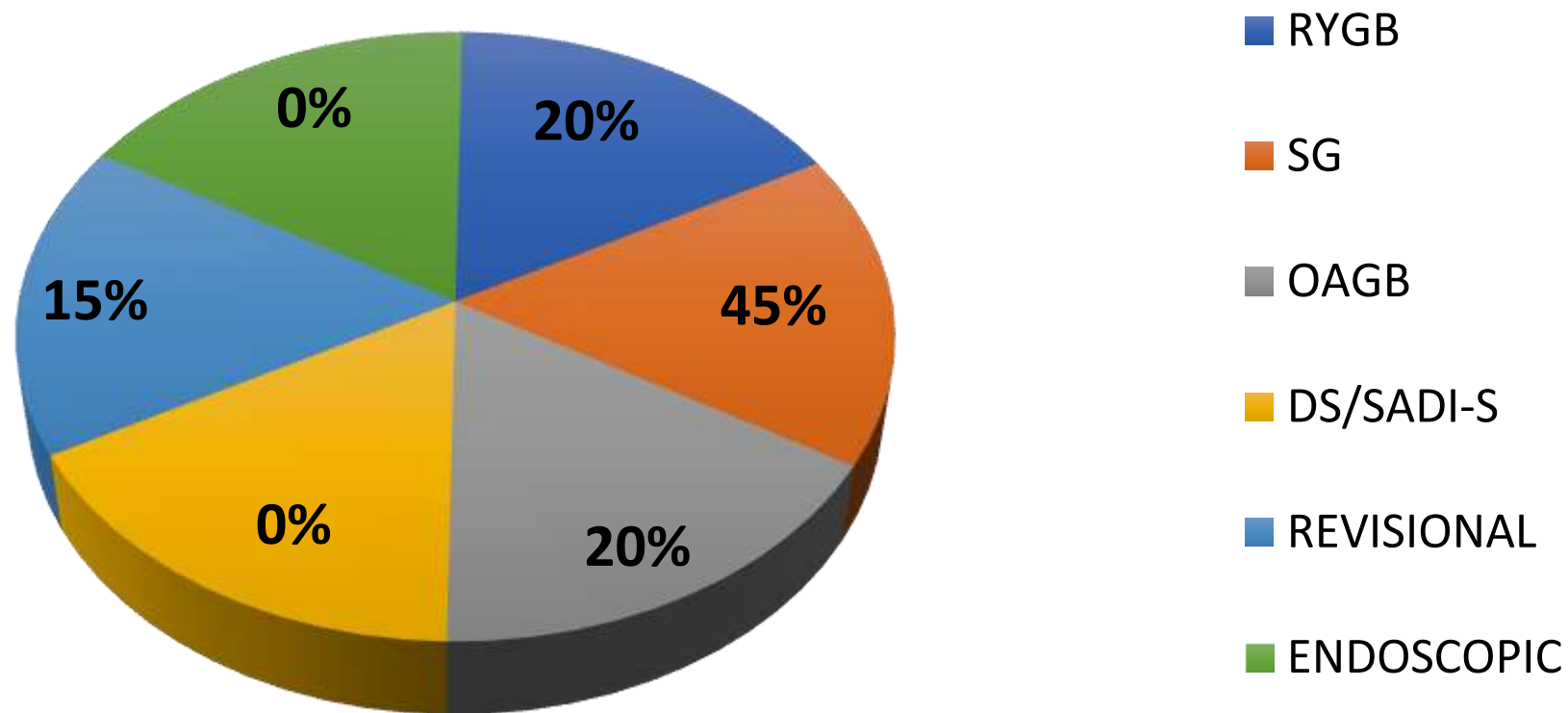
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**I have no potential conflict of interest to report**



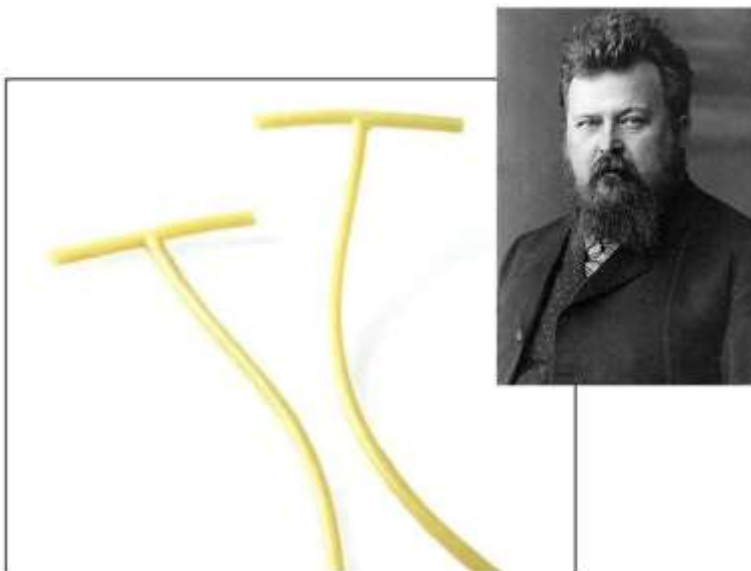
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CASE MIX DISCLOSURE



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- A conservative non surgical endoscopic or radiological approach is safe and effective for small leaks after bariatric surgery
- Treatment of **persistent large leaks** is challenging and may require reoperation and extended hospitalization
- Is there any potential non invasive treatment ???



## Treatment of Persistent Large Gastrocutaneous Fistulas After Bariatric Surgery: Preliminary Experience with Endoscopic Kehr's T-Tube Placement

Liagre, Queralto., Petrucciani, Martini. Obes Surg 2022;37:1377-84



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One step back...

## Multidisciplinary Management of Leaks After One-Anastomosis Gastric Bypass in a Single-Center Series of 2780 Consecutive Patients

Arnaud Liagre<sup>1</sup> · Michel Queralto<sup>2</sup> · Gildas Juglard<sup>1</sup> · Yves Anduze<sup>1</sup> · Antonio Iannelli<sup>3,4,5</sup> · Francesco Martini<sup>6</sup> 

Obes Surg 2019;29:1452-1461

- 46 patients with leak after OAGB → 13 re-laparoscopy
- Surgical or endoscopic insertion of a **T-tube** (9 to 14 Fr) into the orifice in **5 patients** out of 13 undergoing re-laparoscopy and **in 1 patient** out of 9 undergoing endoscopy



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Further results...

## Treatment of Persistent Large Gastrocutaneous Fistulas After Bariatric Surgery: Preliminary Experience with Endoscopic Kehr's T-Tube Placement

Liagre, Queralto., Petrucciani, Martini. Obes Surg 2022;37:1377-84

- **14 patients with large persistent leaks** after SG (7), OAGB (4), RYGB (2), SADI-S (1). T-tube positioned at a mean of 51.5 days after surgery.
- **Success rate = 93%**; mean time of T-tube retention = 86 days



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## Rationale of T-Tube

- Closure of the leak orifice by the tube
- Easy fastening due to its shape
- The tube instigates inflammation and scarring
- Easy to manage: the patient is allowed to drink water and can be discharged with the tube in place
- Patients' comfort: the tube is soft and can be hidden under a dressing
- It is cheap: 8 euros (stents = 800; pigtails = 80)





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## Endoscopic T-tube placement: our indication

- Leak with daily drainage output  $> 50$  ml and duration  $> 10$  days
- Large orifice (2 cm) difficult to treat with pigtails (migration, erosion)



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## Video Demonstration

- 46 years old woman, BMI of 48
- OAGB
- Reoperation at POD 2 for sepsis and peritonitis, washing and drainage, no leak identified
- Drain output: 150 ml/day
- Endoscopy at POD 20: gastric fistulous orifice of 2 cm





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## Conclusions

- For **large and persistent** leaks, the T-tube placed by endoscopy may be an innovative and valuable option
- No additional morbidity
- Good tolerance
- Low-cost
- No extended hospitalization



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**Thank you for your kind attention**

