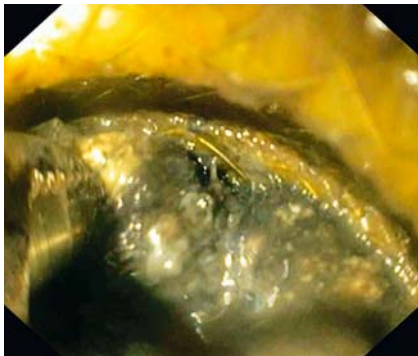


Direct endoscopic necrosectomy with the newly developed 6-mm powered rotating resection catheter: When size matters

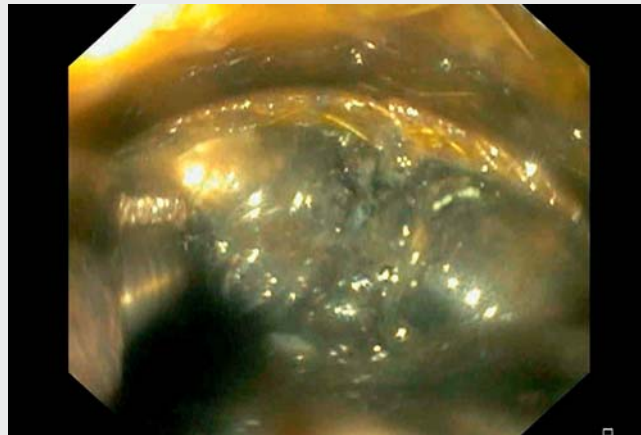


► **Fig. 1** The newly developed 6-mm EndoRotor catheter placed through a lumen-apposing metal stent, to perform direct endoscopic necrosectomy in a walled-off necrosis in a patient with acute pancreatitis.



► **Fig. 2** Comparison between the new 6.0 mm EndoRotor and standard 3.2 mm EndoRotor catheters.

A 41-year-old man with acute pancreatitis of unknown etiology developed a 17×8-cm walled-off necrosis (WON) that was drained percutaneously. The purulent fluid grew *Klebsiella* and *Candida albicans*. After transfer to our hospital, endoscopic ultrasound (EUS)-guided drainage was performed, and a 20×10-mm Axios stent was placed. The solid component



► **Video 1** Direct endoscopic necrosectomy performed with the newly developed 6-mm EndoRotor catheter.

of the WON was about 90% and direct endoscopic necrosectomy (DEN) was scheduled. DEN was started with a 3.2-mm EndoRotor catheter that broke after a few minutes of use. The following day, the new 6-mm EndoRotor catheter was utilized in association with an Olympus GIF-XTQ160 scope. The catheter was placed through the Axios stent (► **Fig. 1**), and in a 70-minute procedure, it was able to aspirate all necrotic content, amounting to 800 mL of collected material (► **Video 1**).

A 77-year-old woman developed biliary acute pancreatitis, complicated by the formation of a large infected WON (16×10 mm, necrotic content 80%), which was drained emergently using a 20×10-mm Axios stent. DEN was performed 3 days later using the 6-mm EndoRotor catheter, and in a 90-minute procedure, 90% clearance of the necrotic content amounting to 600 mL of collected material had been achieved.

We report, for the first time, utilization of the new 6 mm EndoRotor catheter, which represents an evolved version of the 3.2-mm tool, the first dedicated de-

vice for DEN [1–3]. This new catheter can be used with the Olympus GIF-XTQ160 scope (► **Fig. 2 a**) or with an accessory catheter channel that can be attached to an Olympus GIF290 or equivalent Fujii/Pentax scopes (► **Fig. 2 b**). Compared to the 3.2-mm catheter, the 6.0-mm catheter has a 4.4-times larger cutting window and a 2.5-times larger inner lumen, which allows for an 8-times greater throughput and possibly faster and more effective DEN. The average number of procedures required to treat WON with the 3.2-mm catheter has been reported to be 2.1; this number might be decreased by use of the 6-mm device [4].

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Competing interests

The authors declare that they have no conflict of interest.

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References

- [1] van der Wiel SE, Poley JW, Grubben MJAL et al. The EndoRotor, a novel tool for the endoscopic management of pancreatic necrosis. *Endoscopy* 2018; 50: E240–E241
- [2] van der Wiel SE, May A, Poley JW et al. Preliminary report on the safety and utility of a novel automated mechanical endoscopic tissue resection tool for endoscopic necrosectomy: a case series. *Endosc Int Open* 2020; 8: E274–E280
- [3] Rizzatti G, Rimbas M, Impagnatiello M et al. Endorotor-based endoscopic necrosectomy as a rescue or primary treatment of complicated walled-off pancreatic necrosis. A case series. *J Gastrointest Liver Dis* 2020; 29: 681–684
- [4] Stassen PMC, de Jonge PJF, Bruno MJ et al. Safety and efficacy of a novel resection system for direct endoscopic necrosectomy of walled-off pancreas necrosis: a prospective, international, multicenter trial. *Gastrointest Endosc* 2022; 95: 471–479

Bibliography

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