E-VIDEO

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Necrotizing pancreatitis with a recurring pancreatic pseudocyst treated by endoscopic duodenum-gastropancreatic anastomosis

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HIGLIGHTS

- ANP might evolve to MPD rupture which favors PP recurrence.
- In cases of MPD rupture the pancreatic tail must be drained to the stomach.
- Endoscopic duodenum-gastropancreatic anastomosis is a treatment option.

Acute necrotizing pancreatitis (ANP) might evolve with rupture of the main pancreatic duct (MPD) which favors the recurrence of pancreatic pseudocyst (PP). Currently, lumen apposing metallic stent (LAMS) is the best choice for treating walled off necrosis (WON)[1]. After 3-4 weeks, LAMS should be replaced by double pigtail plastic stents (DPPS), as the prolonged length of stay increases the risk of bleeding[2]. There is no consensus in the literature on the length of stay of DPPS.

An 80-year-old woman presented an episode of ANP caused by raticide poisoning. She developed WON being successfully treated by endoscopy with necrosectomy and placement of DPPS. However, a small PP (<2.0 cm) remained. After 10 years of control, she started abdominal pain. MRCP showed an increase in PP (5.0 cm) and rupture of the MPD communicating to the PP (FIGURE 1) (E-VIDEO*).

Initial management was expectant, but after three months the

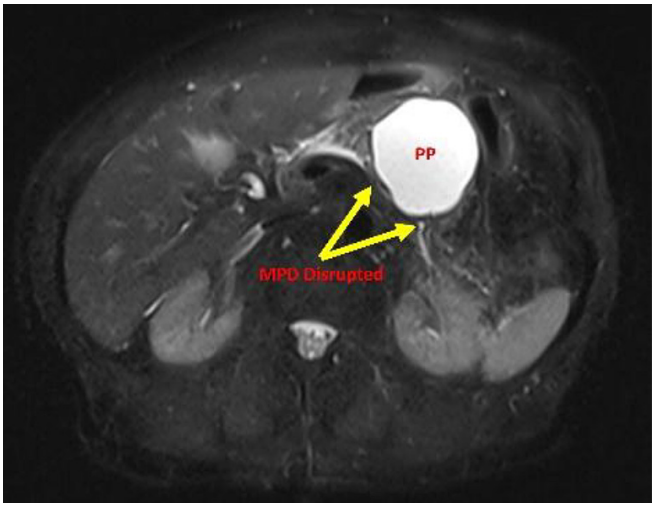

FIGURE 1. MRI showing MPD rupture and relapsed PP with communication with the MPD.
MRI: magnetic resonance imaging; MPD: main pancreatic duct; PP: pancreatic pseudocyst.

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*E-VIDEO: https://youtu.be/N8L_y9ajyOA

symptoms worsened. We indicated ERCP with pancreatic sphincterotomy and placement of a pancreatic plastic stent (5Fr x 7cm) (FIGURE 2). Two months later abdominal pain increased in association to fever and elevated inflammatory markers confirming sepsis and infected PP. Multidisciplinary discussion indicated drainage of the infected PP by LAMS and exchange of the pancreatic stent for a straight plastic stent (8.5F x 12cm) (FIGURES 3 AND 4) were performed. After 3 weeks, the LAMS was removed and DPPS was implanted (10F x 12 cm), which was positioned as a duodeno-gastropancreatic anastomosis (FIGURE 5). Control CT performed after 4 months confirmed complete resolution of the PP.

Endoscopic treatment of MPD rupture is challenging and has a low-resolution perspective, especially in patients who have several recurrences of PP, such as what happened in our patient. The creation of an efficient double-sided drainage allowed complete healing of the recurring PP.

Authors' contribution

Guerra JG: execution of the endoscopic procedure and text writing. Takenaka C: execution of the endoscopic procedure. Fernandes MO: critical revision. Ardengh JG: critical revision and text writing.

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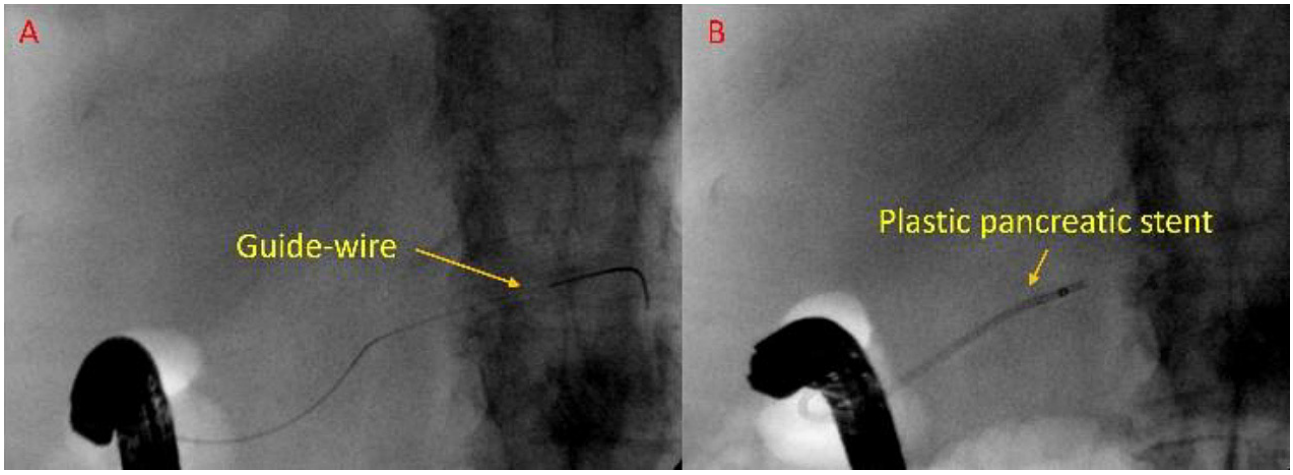

FIGURE 2. Pancreatic transpapillary drainage using plastic pancreatic 5Fx7cm stent was performed, after insertion of guide-wire in the MPD.
MPD: main pancreatic duct.

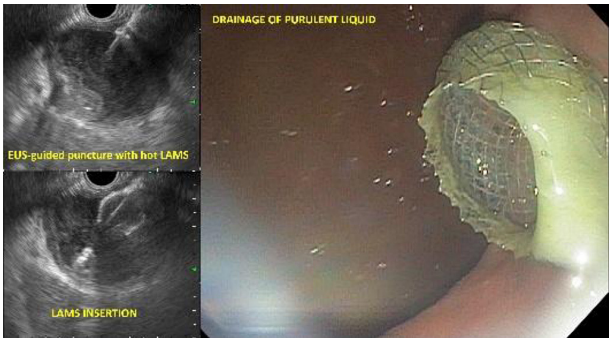

FIGURE 3. Treatment of WON with the passage of the EUS-guided hot-LAMS insertion, with drainage of purulent fluid.
WON: Walled-off Necrosis; LAMS: lumen apposing metallic stent.

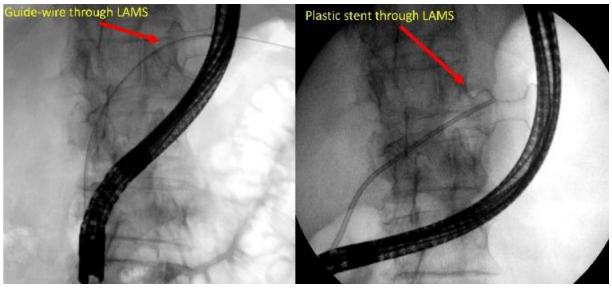

FIGURE 4. The exchange of the pancreatic stent for a straight plastic stent (8.5Fx12cm), showed the guidewire passing through the LAMS and then the implantation of the prosthesis was located at the proximal edge of the LAMS.
LAMS: lumen apposing metallic stent.

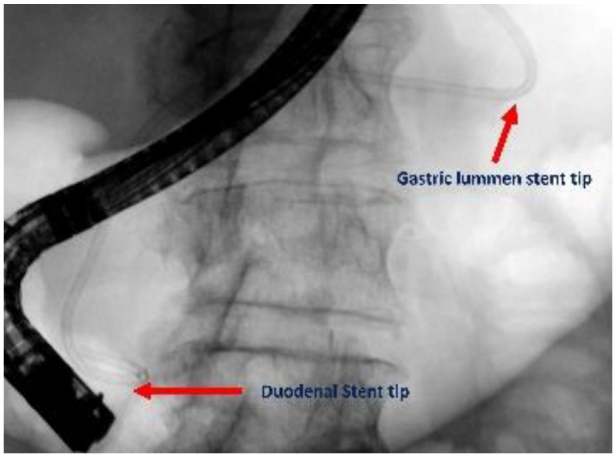

FIGURE 5. Duodeno-gastropancreatic anastomosis.

REFERENCES

1. Heckler M, Hackert T, Hu K, Halloran CM, Büchler MW, Neoptolemos JP. Severe acute pancreatitis: surgical indications and treatment. Langenbecks Arch Surg. 2021;406:521-35.
2. Bang JY, Hasan M, Navaneethan U, Hawes R, Varadarajulu S. Lumen-apposing metal stents (LAMS) for pancreatic fluid collection (PFC) drainage: may not be business as usual [Internet]. Vol. 66, Gut. 2017. p. 2054-6. Available from: http://dx.doi.org/10.1136/gutjnl-2016-312812

Guerra JG, Takenaka C, Fernandes MO, Ardengh JC. Pancreatite necrosante com pseudocisto pancreático recorrente tratada por anastomose duodeno-gastropancreática endoscópica. Arq Gastroenterol. 2023;60(1):158-60.