

## Pancreatic rupture during childbirth treated successfully by endoscopic drainage

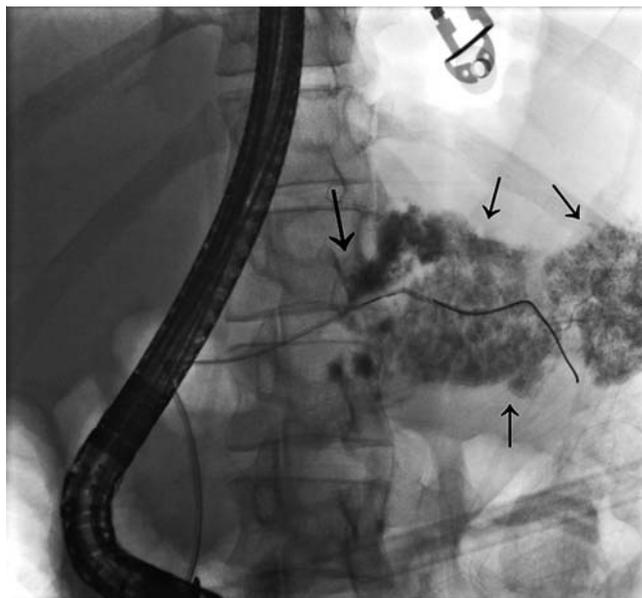
A 22-year-old woman was referred to our hospital for intensifying epigastric pain, 3 days after giving birth. The last stage of labor had been assisted by manual compression of the uterus, during which the patient had a painful, tearing sensation in the upper abdomen. Initial laboratory findings were as follows: hemoglobin 91 g/L, white blood cell count 21500/μL, and amylase 567 IU/L. Abdominal computed tomography (CT) revealed near-total rupture of the pancreas (● Fig. 1).

The patient underwent endoscopic retrograde cholangiopancreatography, and a leak from the main duct of pancreas was noted (● Fig. 2). The distal portion of the pancreatic duct and the rupture site were dilated using a 4 mm/4 cm balloon, followed by placement of a 12 cm/5 Fr stent (● Fig. 3). Subsequently, an ultrasound-guided drain was inserted into the upper abdomen. The patient was kept on parenteral nutrition and somatostatin therapy for 7 days. Due to presence of pleural effusion a drain was introduced into the left pleural cavity. The patient developed paralytic ileus, which was treated conservatively. At 2 days following stent placement, a follow-up abdominal CT revealed no complications (● Fig. 4). The patient was discharged 12 days after admission. No complications were evident on abdominal magnetic resonance imaging at 2 months and the stent was removed after 3 months. At 6 months, secretin-stimulated magnetic resonance cholangiopancreatography revealed no pathology (● Fig. 5) and the patient had fully recovered.

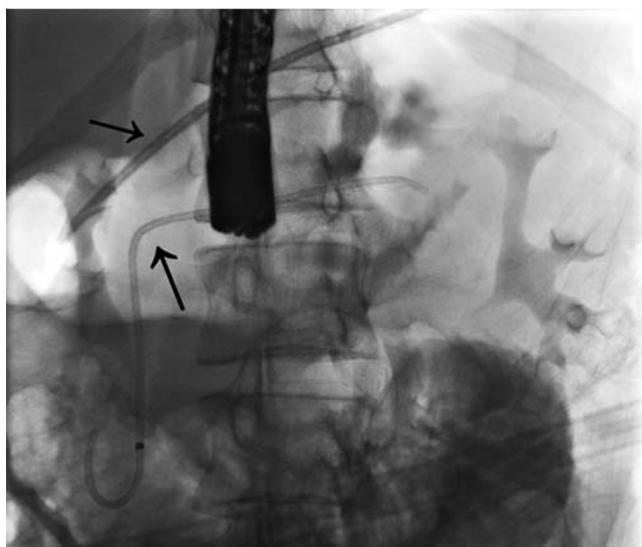
The most important factor determining the outcome of pancreatic injuries is ductal integrity [1,2]. Distal lacerations with ductal involvement, grade III according to the pancreas Organ Injury Scale [3], are traditionally treated with resection [4]. In the present patient, the diagnosis was made after 3 days. Delay is associated with increased morbidity and complication rate. However, external drainage, pancreatic stenting, and otherwise conservative treatment led to complete recovery in the present case.



**Fig. 1** Near-total rupture of the pancreas (large arrow) and free fluid in the abdominal cavity (small arrows) in a young woman a few days after giving birth.



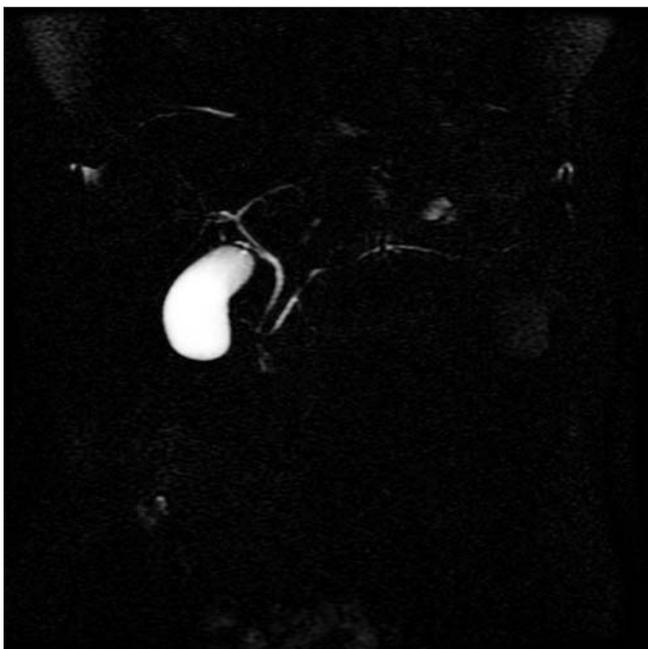
**Fig. 2** The guide wire in the distal portion of the pancreas. The contrast medium had leaked from the main duct (large arrow) to the peripancreatic space (small arrows).



**Fig. 3** The stent was successfully introduced over the rupture site (large arrow). Another stent is seen lying in the stomach after a failed attempt (small arrow).



**Fig. 4** Follow-up computed tomography (CT) image 2 days after the placement of the stent.



**Fig. 5** Magnetic resonance cholangio-pancreatography showing no ductal abnormalities or fluid collections.

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**Competing interests:** None

**J. Khan, J. Ylinen, M. Victorzon**

Department of Surgery, Vaasa Central Hospital, Vaasa, Finland

#### References

- 1 Subramanian A, Dente CJ, Feliciano DV. The management of pancreatic trauma in the modern era. *Surg Clin North Am* 2007; 87: 1515–1532
- 2 Stawicki SP, Schwab CW. Pancreatic trauma: demographics, diagnosis, and management. *Am Surg* 2008; 74: 1133–1145
- 3 Moore EE, Cogbill TH, Malangoni MA et al. Organ injury scaling, II: Pancreas, duodenum, small bowel, colon, and rectum. *J Trauma* 1990; 30: 1427–1429
- 4 Malgras B, Douard R, Siauve N et al. Management of left pancreatic trauma. *Am Surg* 2011; 77: 1–9

#### Bibliography

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#### Corresponding author

**J. Khan**

Department of Surgery  
 Vaasa Central Hospital  
 Hietalahdenkatu 2–4  
 65130 Vaasa  
 Finland  
 Fax: +358-06-3231528  
 jahangir.khan@uta.fi