# A fatal case of a colonic fistula communicating with a walled-off area of pancreatic necrosis

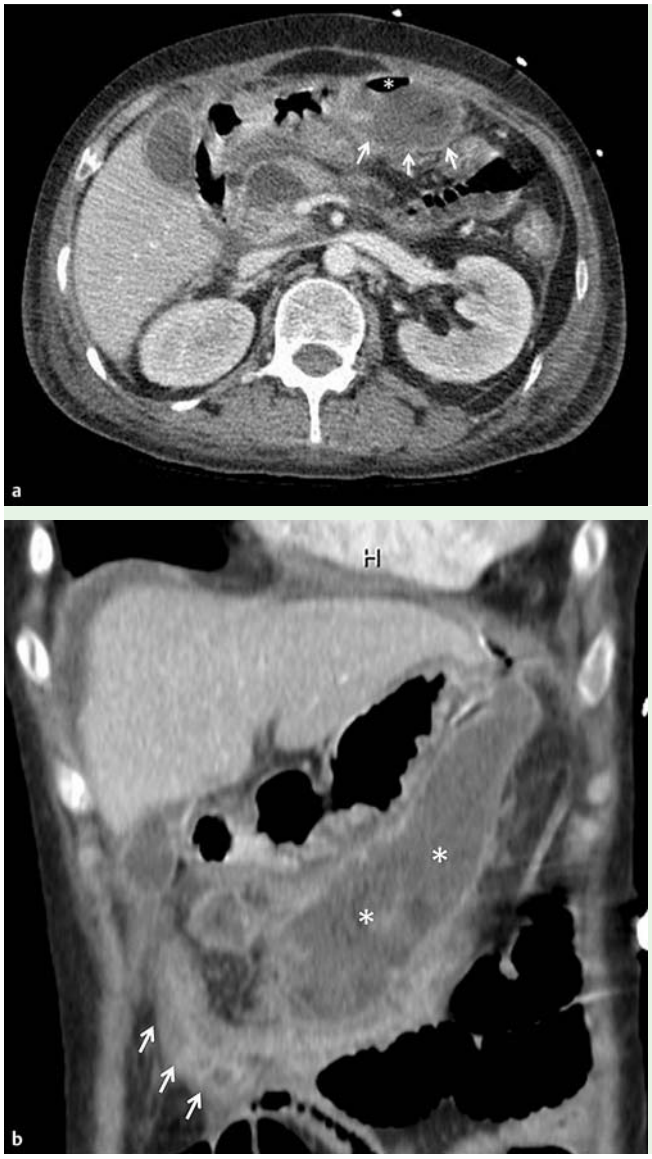

**Fig. 1** Computed tomography (CT) scan of the upper abdomen in a 28-year-old woman with chronic glomerulonephritis, pneumonia, and acute necrotizing pancreatitis showing: **a** a walled-off area of necrosis in the pancreas (arrows) containing an air bubble (*) in axial view; **b** a walled-off area of necrosis in the transverse mesocolon (*) with pressure effect on the transverse colon (arrows) in coronal view.

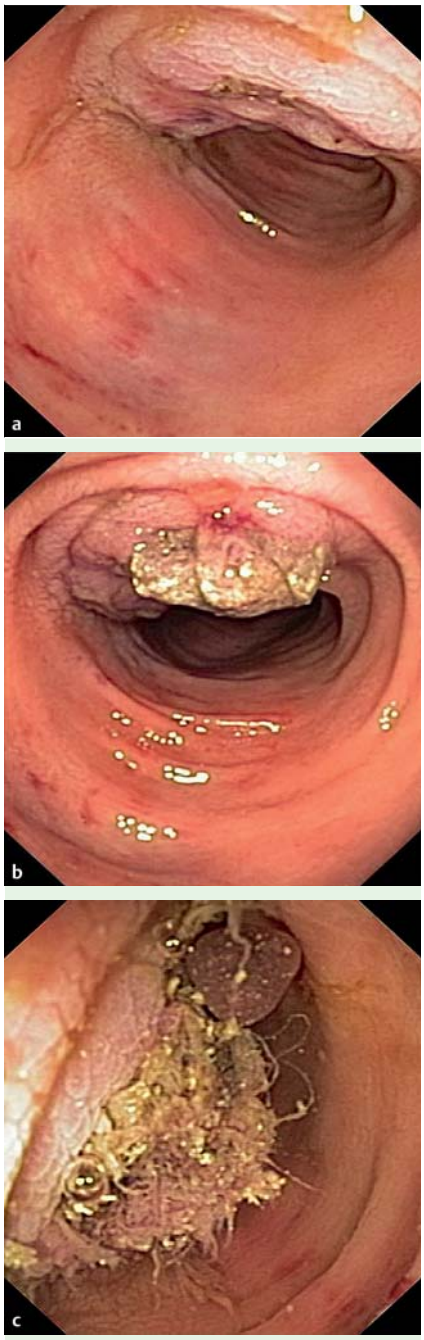

**Fig. 2** Colonoscopy images showing: **a** the edematous wall on the mesenteric side of the transverse colon; **b** necrotic material protruding through an orifice in the edematous wall of the transverse colon; **c** a close-up view of the necrotic material protruding through another orifice in the same area of the colon.

A 28-year-old woman with chronic glomerulonephritis who was treated with prednisolone for many years developed pneumonia due to *Nocardia* that required treatment with co-trimoxazole. She subsequently developed acute necrotizing pancreatitis and her hospital course was complicated by a prolonged fever. In the fourth week, a computed tomography (CT) scan of the abdomen to evaluate the severity of the pancreatitis demonstrated a walled-off area of pancreatic necrosis (5×6cm) that was extending via the transverse mesocolon to the edematous wall of the transverse colon. In addition, an air pocket was seen in the necrotic cavity (▶ **Fig. 1**). This raised the suspicion of infected pancreatic necrosis and/or fistula formation.

The patient developed hematochezia with hypotension 1 day later, and a colonoscopy demonstrated edema of the colonic wall on the mesenteric side of the transverse colon (▶ **Fig. 2a**). In the edematous area, there were three indurated fistulas with necrotic material protruding through the orifices (▶ **Fig. 2b, c**; ▶ **Video 1**). Unfortunately, standard debridement and drainage could not be performed because her condition deteriorated rapidly, and she died from severe bacterial and fungal sepsis.

Colonic involvement is an uncommon, but potentially serious, complication of severe acute pancreatitis [1–4]. The colonic complications typically range from moderate to severe and include localized ileus, obstruction from severe edema or inflammation, colonic ischemia with or without necrosis, hemorrhage, and fistula formation [1].

Colonic fistulas occur in 3%–10% of patients with severe acute pancreatitis [2]. An air pocket in a necrotic area of the pancreas usually indicates that infected necrosis is present and/or there is a fistula to the gastrointestinal tract. The root of the mesocolon, which is anterior to the pancreas, serves as a potential route for spread of inflammatory mediators to the colonic wall. This inflammation may lead to thrombosis of mesenteric vessels and subsequently to necrosis of the colonic wall [5]. The consequences of a colonic fistula may be more severe than those of fistulas at other sites because of the heavy load of multiple organisms, including fungus, present within the colon.

**Video 1**

Colonoscopic view during air insufflation showing necrotic material protruding through an orifice in the edematous wall of the transverse colon.

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**Competing interests:** None

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## Bibliography

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