

Double-pigtail stent migration invading the spleen: rare potentially fatal complication of endoscopic internal drainage for sleeve gastrectomy leak

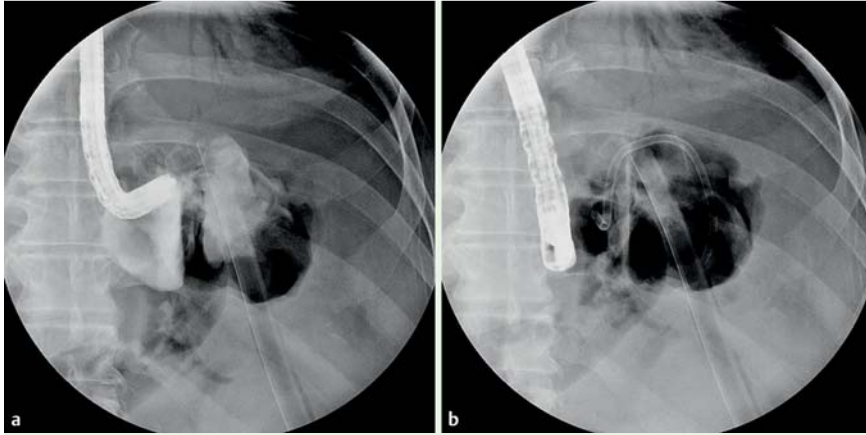


Fig. 1 Gastric fistula in a 35-year-old man, 10 days after sleeve gastrectomy. **a** Gastric fistula at cardia with perigastric collection and surgical drainage tube. **b** Endoscopically placed 5-cm double-pigtail stent.

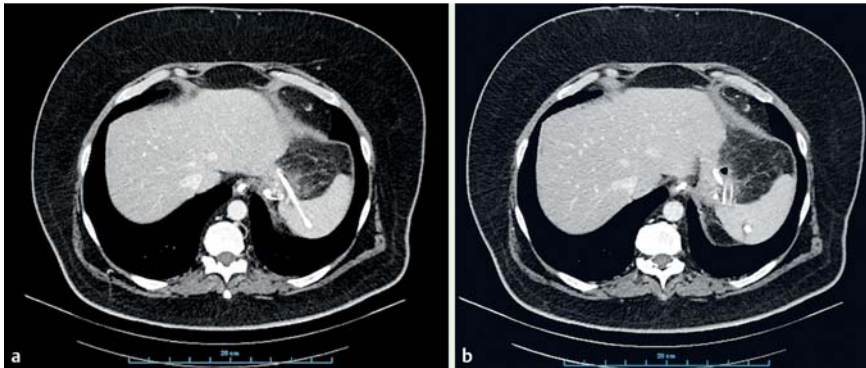


Fig. 2 **a, b** Intrasplenic migration of the double-pigtail stent, with laceration of parenchyma but no vessel injury or extravasation of contrast medium.



Fig. 3 Endoscopic removal of the double-pigtail stent that had migrated into the spleen.

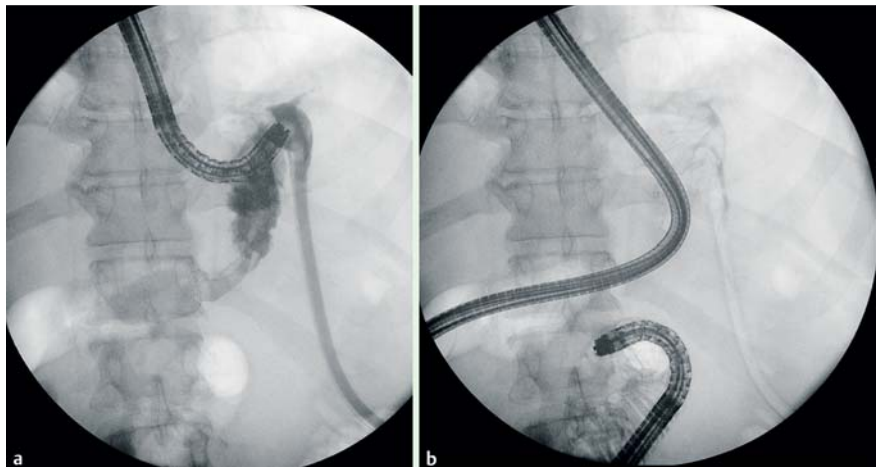


Fig. 4 **a** Injection of contrast medium showed absence of any collection, although the drainage tract was opacified. **b** A 7-Fr, 5-cm length double-pigtail stent was delivered to achieve internal drainage.

Endoscopic internal drainage (EID) by means of a double-pigtail stent is increasingly used as an effective approach to management of leak and fistula following gastrointestinal (GI) surgery, particularly surgery for obesity [1–3]. Complications related to this technique include GI ulceration at the tip of the double-pigtail stent, migration into the abdominal cavity, and bleeding.

A 35-year-old patient underwent endoscopic internal drainage for a gastric fistula at the cardia that became evident 10 days after sleeve gastrectomy. A surgical drainage tube, placed during the gastrectomy procedure, was seen to be reaching the perigastric collection (● Fig. 1 a). A 5-cm length double-pigtail stent was delivered through the fistula orifice into the collection (● Fig. 1 b). A nasojejunal tube was inserted for feeding, and the patient's recovery was uneventful.

A computed tomography (CT) scan performed 4 weeks after EID showed intrasplenic migration of the double-pigtail stent with laceration of the parenchyma but no vessel injury or extravasation of contrast medium (● Fig. 2 a, b). The patient was hemodynamically stable with no sepsis. The double-pigtail stent was successfully removed endoscopically without any bleeding (● Fig. 3). Injection of contrast medium showed no collection although the drainage tract was opacified (● Fig. 4 a). A 7-Fr double-pigtail stent of length 5 cm was placed to achieve internal drainage (● Fig. 4 b). The patient's recovery was uneventful. The surgical drainage tube was removed, and removal of the double-pigtail stent after 6 weeks was scheduled.

Most leaks or fistulas following sleeve gastrectomy are located in the upper part of the staple line in the left hypochondrium and are in close proximity to splenic vessels and splenic parenchyma. There is always a possibility of injuring these structures during the maneuvers to deploy the pigtail stent, during EID. Here we report the first case of intrasplenic migration of a double-pigtail stent following EID for a sleeve gastrectomy leak. This potentially fatal complication should be well recognized and considered. Most splenic trauma cases (grade I to grade V) are managed conservatively unless there is a concomitant life-threatening vascular disruption [4]. The same principles are applicable to management of the complication described here.

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