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

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. 1a). A 5-cm length double-pigtail stent was delivered through the fistula orifice into the collection (Fig. 1b). 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. 2a, 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. 4a). A 7-Fr double-pigtail stent of length 5 cm was placed to achieve internal drainage (Fig. 4b). 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 hypo-
chondrium 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 mi-
gration of a double-pigtail stent following EID for a sleeve gastrectomy leak. This po-
tentially fatal complication should be well recognized and considered. Most splenic trauma cases (grade I to grade V) are man-
aged conservatively unless there is a con-
comitant life-threatening vascular disrup-
tion [4]. The same principles are applic-
able to management of the complication described here.

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