An interesting case of complicated aortobifemoral graft: duodenal migration and colonic perforation

Fig. 1 CT of abdomen. The limb of the aortobifemoral graft (arrow) is within the lumen of sigmoid colon.

Fig. 2 Colonoscopic view of the aortobifemoral graft inside the sigmoid colon.

Fig. 3 Surgical view of the intraduodenal part of the aortobifemoral graft, which was infected and eroded.

Fig. 4 A new aortobifemoral graft interposed to replace the old one complicated by duodenal migration and sigmoid perforation.

Here we present a case of complicated aortobifemoral graft. To the best of our knowledge it is the only case reported in the literature in which duodenal migration and colonic perforation were observed together and a colonoscopic view was obtained.

A 55-year-old man was admitted to our clinic with left groin pain and purulent discharge. He had undergone aortobifemoral trouser graft surgery 3 months ago, for severe obstructive atherosclerosis. The laboratory work-up revealed leukocytosis and an elevated erythrocyte sedimentation rate. Physical examination revealed a palpable mass in the left inguinal region, from which a purulent exudate oozed on applying pressure. Computed tomography (CT) showed that the main body of the graft was in the duodenal lumen and the left limb of the graft had perforated the adjacent sigmoid colon toward the skin (● Fig. 1). There was an abscess beneath the skin in this region. Flexible sigmoidoscopy demonstrated a white tubular object lying across the lumen of the sigmoid colon (● Fig. 2). It was partially coated with feces. The mucosa around the object appeared normal after gentle washing and no blood was observed. The patient underwent surgery, and the intraduodenal part of the graft, which was infected and eroded (● Fig. 3), was resected and a new graft was interposed (● Fig. 4). The left limb of the graft was extracted from the sigmoid colon and the entrance and exit holes were repaired by primary

suture. A left superficial femoral vein graft was implanted in place of the extracted limb.

Aortoenteric fistulas are not rare complications of aortofemoral graft surgery. Disruption of the suture lines may cause a pseudoaneurysm, which erodes the adjacent bowel wall with time [1]. Infection of the suture lines and intraoperative technical mistakes, which result in injury to bowel segments, may have a role in the migration of the graft from the retroperitoneum into duodenum or adjacent colon segments [2]. The duodenum is the most frequently involved segment, whereas the colon is the least frequently affected part [3]. CT is important for prompt diagnosis of complications of aortofemoral grafts. Endoscopic examination may be necessary to confirm the diagnosis as in our case, but it is not required most of the time. Endoscopy should be performed gently with as little air as possible to avoid perforation. Timely surgical intervention is essential in the treatment.

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