Colonoscopic finding of an unusual sigmoid colon fistula caused by ovarian teratoma

A 42-year-old woman was admitted to our hospital because of intermittent lower abdominal pain with mild constipation over the preceding 4 months. Her medical history was uneventful and we recommended that she undergo a colonoscopy. During the procedure, we discovered to our surprise a fistula in the colon (16 cm from the anal verge near the rectosigmoid junction) with swollen surrounding mucosa and a tuft of hair that was protruding straight into the colonic lumen (Video 1). Our endoscopic diagnosis was of a fistula of the sigmoid colon with the suspicion of an underlying teratoma. An abdominal computed tomography (CT) scan revealed a heterogeneous left ovarian mass in close contact with the sigmoid colon (Fig. 2).

The patient was subsequently referred for surgery. During the course of this, a large mass that was arising from the left ovary and protruding into the colonic lumen was identified. The perforation that this was causing was clearly visible in the anterior wall of the sigmoid colon (Fig. 3). A left oophorectomy with en bloc excision of the teratoma was performed, and the involved sigmoid colon was resected, with a colorectal anastomosis being created. The patient had no complications and was discharged 1 week after her surgery.

The resected tumor specimen was 11 cm × 11 cm in size and consisted of hairs and smelly fluid (Fig. 4). Pathological examination revealed a mature cystic ovarian teratoma that had ruptured and infiltrated into the lumen of the sigmoid colon producing the fistula. Colonic fistulas caused by infiltrating teratomas, which can originate from the ovary or even from the colon itself, are extremely rare [1, 2]. Complications of ovarian teratoma include infection, torsion, rupture, and malignant transformation [2]. Rarely, the tumor can rupture into the pelvic cavity or adjacent organs, such as the colon and bladder, causing corresponding symptoms [3]. This case represents a rare complication, with a ruptured ovarian teratoma presenting as a colonic fistula that was initially discovered on screening colonoscopy. Surgery may be helpful in treating these patients.

**Fig. 1** Colonoscopic view of the fistula in the sigmoid colon and hair strands protruding into the lumen.

**Fig. 2** Pelvic computed tomography (CT) scan showing an 11 cm × 11 cm heterogeneous ovarian mass compressing the colon.

**Fig. 3** Surgical view showing the left ovarian teratoma infiltrating the colon (arrow).

**Fig. 4** Macroscopic view of the opened surgical specimen showing the presence of hairs in the ovarian teratoma.
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Competing interests: None

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