A 62-year-old female presented to the outpatient department of Wuhan Central Hospital of Tongji Medical College in September 2015with a complaint of recurrent infections in the umbilical region.
She reported abdominal pain similar to a burning sensation that accompanied the discharge of faecal matter.
These symptoms and signs waxed and waned but lasted for 5years.
Our attention was piqued by the fact that the patient's family described the patient as an individual who cried easily.
The patient had no history of diarrhoea, constipation or other abdominal disturbances.
No surgical treatment was mentioned in her prior medical history.
Acoordinated physical examination revealed normal vital signs.
An external fistula was located in the umbilical region with redness of the surrounding skin.
Morphological examination indicated that fistula secretions mainly consisted of small intestinal juice.
The abdominal wall was soft, with no tenderness.
Bowel sounds were regular.
Escherichia coli and Enterococcus faecalis were detected in the fistula secretion culture.
Other findings from laboratory examinations were normal.
A CT scan of the abdomen revealed that part of the intestinal wall was adhered to the abdominal wall in the navel region, although no bowel obstruction was detected (Fig.1).
A presumptive diagnosis of ECF was reached; this diagnosis was mainly based on digital radiography of the fistulous tract conducted using iopamidol-370 as a contrast agent.
This procedure was performed under local anaesthesia and revealed that the distal ileum approximately 40 cm from the ileocaecal junction was entrapped (Fig.2).
The patient agreed to surgery after a clear preoperative conversation.
She understood the operative risk factors and signed an informed consent.
After bowel preparation, the patient received an exploratory laparotomy.
The abdominal cavity was completely exposed, and a loop of the terminal ileum (approximately 40 cm proximal to the ileocaecal junction) was found entrapped in the internal hernia ring; this finding was consistent with the preoperative contrast image.
The defect in the abdominal wall was less than 1.0 cm, and an extremely small portion of the bowel wall was stuck and could not be retrieved back into the cavity (Fig.3).
Nonetheless, this defect resulted in perforation over the loop (Fig.4).
Side-to-side ileo-ileal anastomosis was completed by utilizing a 75 mm linear stapler to remove the affected ileum segment.
The internal hernia ring was closed with plication sutures instead of via mesh repair due to the patient's small defect and infection risk.
The abdominal cavity was thoroughly cleaned with saline solution, and a rubber drainage tube was placed in the pelvis.
The scar tissue was removed to improve wound healing; subsequently, relaxation sutures were available to close the abdomen in layers.
A final diagnosis of Richter's hernia presenting as spontaneous ECF was reached.
The patient was discharged 2 weeks after surgery without serious complications.
No hernia recurrence was observed during 10 months of follow-up.