

despite the benign appearance, may contain malicious elements or potentiality for malignant degeneration in the medium term, and the risk of infection in benign cysts. This patient was discharged on the seventh postoperative day, with uneventful recovery.

The resection of the coccyx is not recommended unless there is suspicion of involvement by malignant disease³. As far as rectum is often densely adhered to the tumor, should be carried out careful dissection, to avoid injury.

There are three types of surgical approach: anterior or abdominal transperitoneal or extra-peritoneal, conventional or laparoscopic access; the posterior approach; and combined abdominosacral route.

The anterior approach is used for high lesions (with caudal end until the level S4) without evidence of sacral engagement. The rectum is folded laterally and the median sacral artery is usually linked with the dissection and tumor is enucleated².

The latter approach is preferred for smaller, benign lesions that do not extend beyond the level S4. This route is used when the presence of neural involvement or for better viewing and preservation¹.

Tumors of major proportions exceeding proximal and distal S4 level are more easily operated via abdominosacral² route. The resection can be performed synchronously with the patient in the lateral position or sequentially with the change in position after each stage of the operation. The benefit of the combined approach includes the ability to display structures such as ureter, nerve and sacral iliac vessels, particularly important in cases where there is the need to perform partial sacrectomy, especially in chordoma.

The adjuvant therapies have only a secondary role in the management of tumors in retrorectal space. In cases where radical surgery is contraindicated, palliative radiotherapy has been carried out, except for chordoma, classically radioresistant.

The survival of benign tumors approaches to 100% in most studies⁷. However relapse is not uncommon. Development of cysts relapses up to 15%¹. Approximately 9-45% of retrorectal malignant tumors are most commonly solids than cystic, with recurrence rates of 45%; five year survival rate is about 8 to 17%.

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ABCD DV/1112

ABCD Arq Bras Cir Dig

2015;28(2):152

DOI:http://dx.doi.org/10.1590/S0102-67202015000200019

Letter to the Editor

AN EXTREMELY RARE COMPLICATION OF MECKEL'S DIVERTICULUM: ENTEROCUTANEOUS FISTULIZATION OF UMBILICAL HERNIA

Complicação rara de divertículo de Meckel: fistulização enterocutânea através de hérnia umbilical

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Financial source: none
Conflicts of interest: none

Received for publication: 04/02/2014
Accepted for publication: 11/12/2014

INTRODUCTION

Meckel's diverticulum is the most common malformation of the gastrointestinal tract with an incidence of 2% of the population. This congenital anomaly results from incomplete yolk duct development¹. Meckel's diverticulum has a complication rate of 4-6%. Most common complications are haemorrhage, perforation, obstruction and inflammation⁴. It is mostly asymptomatic and most often diagnosed when complications occur. Also it may be diagnosed incidentally during laparoscopy or laparotomy for unrelated conditions¹.

Fistula formation (between abdominal organs), herniation (of abdominal wall), and Littre hernia (protrusion of a Meckel's diverticulum through an abdominal wall defect) are well-described complication. However, umbilical herniation of Meckel's diverticulum is rare³. Herein is presented a case with enterocutaneous fistula between Meckel's diverticulum and umbilicus associated with umbilical hernia.

CASE REPORT

A 40-year-old man was admitted to the department of General Surgery with a 24 h history of abdominal pain focused on the umbilical region, as well as fever, anorexia and vomiting. He had a history of previous umbilical abscess drainage five years ago. He reported no other medical history. Examination of the abdomen showed tenderness over the umbilical region without abdominal guarding and rigidity. A leakage of intestinal fluid through an opening (an external fistula orifice) was determined inside the umbilicus. There was no increase in local heat, swelling or edema. The laboratory findings, including complete blood count and electrolytes, and abdominal X-ray showed no abnormality. Abdominal ultrasound showed a well-limited

DISCUSSION

liquid collection of 1.5x1.5 cm subcutaneously under the umbilicus. The contrast-enhanced abdominal computerized tomography scan revealed a small intestine segment lying subcutaneously throughout the fascia defect on the umbilicus. The intestine was fistulized throughout the umbilical hernia into the external layer of the skin (Figure 1). With the clinical and radiological findings, the patient was initially diagnosed as enterocutaneous fistula with a Meckel's diverticulum. In the surgery, abdomen was opened and the exploration revealed Meckel's diverticulum (lying subcutaneously throughout the fascia defect on the umbilicus) and a fistula between this and the umbilicus. There was no fluid contamination in the abdomen. A diverticulectomy and an excision including the fistula tract and umbilicus were performed (Figure 2). The patient was discharged at fifth postoperative day safely. Histopathologic examination approved Meckel's diverticulum.

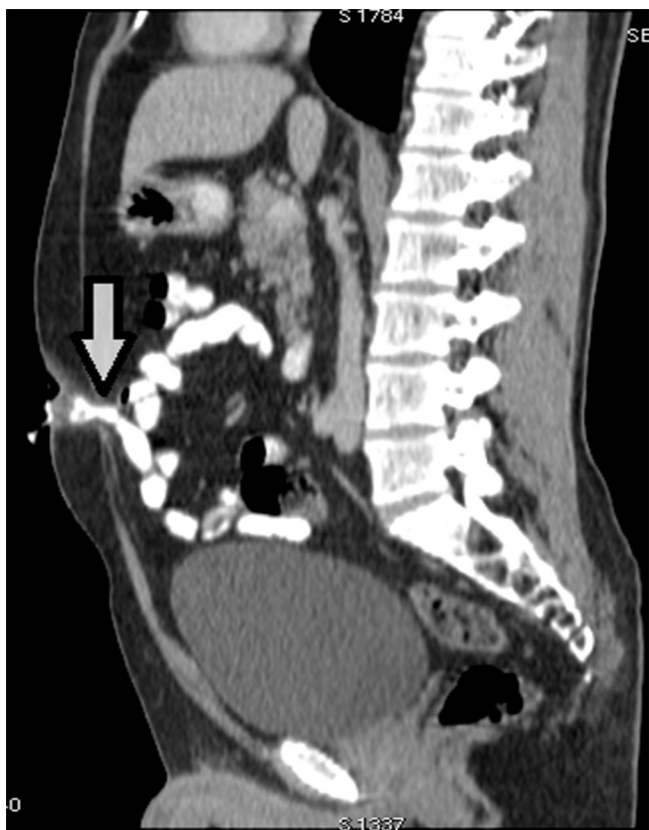


FIGURE 1 - Contrast enhanced CT shows an intestine fistulized throughout the umbilical hernia into the external layer of the umbilical skin



FIGURE 2- Intraoperative image showing the Meckel's diverticulum forming enterocutaneous fistulization of Littre's umbilical hernia

Various complications of Meckel's diverticulum include ulcerations, gastrointestinal bleeding, intestinal obstructions due to bands, intussusceptions, diverticulitis, perforations and neoplasms^{2,3}. In patients under 18, the most common presentation is haemorrhage, while in adults it is intestinal obstruction. Beyond all, development of fistula is a rare complication. In literature, enterocolonic fistula, vesicodiverticular fistula and ileorectal fistula have been reported as case reports and recently a fistula between Meckel's diverticulum and the appendix has been published⁵. However, the search of Pubmed literature failed to find any previous study regarding a fistula between a Meckel's diverticulum and the umbilicus.

A possible explanation for this situation is that Meckel's diverticulum may congenitally be localized in the umbilical hernia sac. An inflammatory attack of Meckel's diverticulum in the hernia sac leads to an abscess formation and sinus. When missed, or undiagnosed, an enterocutaneous fistula may occur. Based on the experience in this case, complications of Meckel's diverticulum should be considered during differential diagnosis of enterocutaneous fistula.

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