

PRESENTATION OF COLONIC DUPLICATION CYST IN ADULT AS AN ACUTE ABDOMEN

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ABSTRACT

Enteric duplications are rare congenital malformation that can occur anywhere along the length of the alimentary tract, colonic duplication being the rarest. They usually present in paediatric patients and rarely in adults. We report a case of an infected colonic duplication cyst in an adult woman who presented as a case of intestinal obstruction. The infected colonic duplication was of cystic type communicating with transverse colon at splenic flexure and contained foul smelling pus. The cyst along with part of colon was resected and primary anastomosis performed. Post operative recovery was uneventful.

Key words Enteric duplication cyst, Intestinal obstruction, Adults.

INTRODUCTION:

Alimentary tract duplications are uncommon congenital malformations that can occur anywhere in the tract, from mouth to anus and commonly encountered in paediatric age group.¹ Alimentary tract duplications appear as cystic or tubular malformations. These duplications may communicate with the gastrointestinal tract.² Overall the colon is the least common site of congenital alimentary tract duplications. Colonic duplication cyst can present with symptoms of diverticulitis, intestinal obstruction, presence of an abdominal mass and sometimes bleeding and perforation.^{3,4}

Surgery is the main stay of treatment and allows a final pathological diagnosis. Removal of the cyst should be considered satisfactory, but resection of the duplication and the adjacent bowel is recommended because of the possibility of malignant changes and the risk of gastrointestinal ulceration and haemorrhage due to ectopic gastric mucosa.⁵

CASE REPORT:

A 25 years old female, admitted through emergency with the complaints of constipation, abdominal pain and vomiting for the last 15 days. Examination revealed dehydration and

pulse rate of 110 beats/min. Abdomen was distended, non tender and gut sounds were audible. Rectal examination was unremarkable. Her haemoglobin was 9.6g/dl, WBC 13x10/L, blood urea 62 mg%. Plain abdominal radiography showed multiple air fluid levels and dilated small and large gut. Patient was managed conservatively as a case of intestinal obstruction. Ultrasonography was insignificant due to gas filled bowels. Gastrograffin challenge was given. Repeat abdominal radiography showed dilated terminal ileum, caecum, ascending colon and transverse colon up to splenic flexure. Subsequently, Patient passed flatus and faeces. After 48 hours of admission, she again developed abdominal pain, abdominal distension and visible peristalsis. Immediate surgical intervention was decided.

Abdominal exploration revealed sub-phrenic pus pocket with gangrenous wall, above and behind spleen communicating with the splenic flexure of the transverse colon, containing approximately 500 ml of foul smelling pus, distended and viable terminal ileum, caecum, ascending colon and transverse colon up to splenic flexure with collapsed descending colon. The cystic lesion was resected en bloc to the adjacent part of the colon and an end to end anastomosis performed and drain placement done. Patient had an uneventful post-operative course. Histopathological examination of the resected lesion revealed an infected colonic duplication cyst.

DISCUSSION:

Gastrointestinal duplication cyst are reported 1 of every 4500 autopsies.⁶ They usually present during the first decade

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of life. Mostly occurring in paediatric patients, colonic duplication is rarely encountered in adults.⁷ These lesions may be cystic (75%) or tubular (25%) in appearance and characteristically arise from the mesenteric border of the bowel.⁸ The duplications usually of cystic type does not communicate with the lumen of the adjacent bowel and contain serous fluid.¹ In our case, the cyst had communication with colonic lumen and contained foul smelling pus

The diagnosis of intestinal duplication may be difficult and usually not made pre-operatively. The patient may remain asymptomatic or present with a variety of non specific signs and symptoms. In general, abdominal pain is the most common presenting symptom in adult patients diagnosed with enteric duplication cysts. A radiological diagnosis in this condition can be difficult, as illustrated by this report. Ultrasound has been advocated by some as it allows identification of a cystic or solid mass. In our case, a diagnosis would have been unlikely as the gas-filled abdomen would make ultrasound more difficult.

The barium enema is also of limited benefit, although in the presence of distal communication it may be diagnostic. In our case, it never entered the cyst because of the twisting at its pedicle and it was not appreciated initially. Other authors advocate the use of nuclear medicine scans to look for ectopic mucosa; however, in the absence of gastric mucosa in colonic duplication this investigation would be of little use.⁸ CT scan is useful in delineating the surrounding structures.⁹

Most authors recommend that once the diagnosis of duplication is established, an elective surgical procedure should be performed to avoid complications and perform procedure in an optimal state of the patient. The recommended surgical procedure is excision of the duplication. Some duplications and the adjacent normal bowel share part of the muscular coat and the intestinal straight arteries. Thus, resection of both normal and duplicated bowels with intestinal anastomosis is a usual surgical treatment. Sometimes it is possible to resect them without compromising the adjacent bowel vascularization. Although, there have been some malignant changes reported in adults, colorectal duplications are in themselves benign lesions. For this reason, surgical excision should not be radical but should involve complete resection of the duplication along with the adjacent colon.

Alimentary tract duplications should be considered in the differential diagnosis if a patient presents with intestinal obstruction. Moreover as this is a benign disease, surgical resection is the preferred method of treatment in order to prevent future complications like haemorrhage, perforation and rarely malignancy.

REFERENCES:

1. Carnerio FP, Sobreira MDN, Ana EB, Andrea PRA, Karina MC. *World J Gastroenterol* 2008;14:966-68.
2. Murakanni S, Isozaki H, Shon t, Sakai K, Toyota H. Foregut duplication cyst of the stomach with pseudo stratified columnar ciliated epithelium. *Pathol Int* 2008;58:187-90.
3. Paulson EC, Mahmoud NN. Sigmoid colon duplication cysts. *Ann Surg* 74: 250-2.
4. Herrera AAA, Montano SOC, Martinez HMP. *Rev Gastroenterol Mex.* 2008;73:36-9.
5. Fritelli P, Costa G, Zanella L, Squazzini G, Rossi FS. Intestinal duplication in the adult. A case of colonic duplication and a review of the literature. *Chir Ital.*2002;54:721-28.
6. Saxena K A, MD <http://www.emedicine.com/ped/topic 2959.HTM>
7. Kekez T, Augustin G, Hrstic I, Smud D, Majerouic M, Jelincic Z et al. Colonic duplication in an adult who presented with chronic constipation attributed to hypothyroidism. *World J Gastroenterol.* 2008;14:644-46.
8. Jimenez SG, Oliver MR, Stokes KB, Morreau PN, Chow CW. Colonic duplication:a rare cause of obstruction. *J Gastroenterol Hepatol.*1999;14:889-92.
9. Otter MI, Marks CG, Cook MG. An usual presentation of intestinal duplication with a literature review. *Dig Dis Sci.* 1996;41:627-29.