Giant diverticulum of colon treated by diverticulectomy

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INTRODUCTION

Giant diverticulum of the colon is a rare condition. If left untreated it will enlarge and give rise to symptoms or serious complications so it is best treated electively once the diagnosis is made. Local excision of the diverticulum could be adequate surgical treatment as an alternative to sigmoid colectomy.

DISCUSSION

The first case of giant colonic diverticulum was reported by Bonvin and Bonte in 1946 and it has only been reported sporadically since then (Cases et al, 1992). It usually presents as a curious large oval air-filled cyst on abdominal X-ray, with abdominal pain, abdominal mass or with a complication such as perforation, volvulus or obstruction. Diagnosis is made by plain abdominal X-ray, and occasionally the diverticulum is filled with contrast in barium enema (Van Niekerk and Fourie, 1989; Marechal et al, 1989). Computed tomography scanning is helpful in case of doubt (Marechal et al, 1989; Cases et al, 1992).

Three different types of diverticulum are described: inflammatory diverticulum developed as a result of a tiny perforation, giant pseudodiverticulum as a result of gradual enlargement of a pre-existing pulsion pseudodiverticulum or true giant diverticulum as a congenital anomaly. All share the same clinical and radiological presentation (Bonvin and Bonte, 1946; McNutt et al, 1988).

The natural history of the diverticulum is to enlarge and eventually give rise to either symptoms or complications (Marechal et al, 1989). Previous authors have suggested elective sigmoid colectomy (Moesgaard and Felding, 1983; Marechal et al, 1989; Levi et al, 1993; Stephenson and Wheeler, 1994) whenever possible once the diagnosis is made rather than conservative treatment. This case demonstrated rapid increase in size in a period of 2 months. The inflammation was only in the diverticulum, with the rest of the colon affected by uncomplicated diverticular disease; the communication between the giant diverticulum and the sigmoid lumen was a narrow orifice.

With this presentation sigmoid colectomy was thought to be unnecessary and local excision of the diverticulum to be adequate treatment, leading to faster recovery with lower morbidity than formal sigmoid colectomy. Unless there are other indications for resecting the sigmoid colon we recommend diverticulectomy in similar situations. HM

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Levi DM, Levi JU, Rogers AI, Bergua DK, Wenger J (1993) Giant colonic diverticulum: an unusual manifestation of a common disease. *Am J Gastroenterol* **88:** 139–42

Marechal A, Brousse P, Rousseau J (1989) Giant diverticulum of the colon. Report of 2 cases. *J Radiol* **70(1):** 43–6

McNutt R, Schmitt D, Schulte W (1988) Giant colonic diverticula — three distinct entities. Report of a case. *Dis Colon Rectum* **31:** 624–8

Moesgaard J, Felding C (1983) Giant diverticulum of sigmoid colon. *Acta Chir Scand* **149:** 445–7

Stephenson BM, Wheeler MH (1994) Unpredictable course of minimal diverticular disease. *Br J Surg* **81:** 1050

Van Niekerk AJ, Fourie PA (1989) Giant colonic diverticulum — a radiological diagnostic problem. *SAMJ* **75:** 447–8

CASE REPORT

An 83-year-old woman presented with a 6-week history of lower abdominal pain and cystic non-tender mass in the right iliac fossa. Barium enema showed a large oval shadow full of gas overlying the caecum on all films, double contrast examination showed no abnormality in the large bowel apart from diverticulosis in a redundant sigmoid colon, and the gas-filled shadow did not fill with barium. Giant diverticulum of colon was diagnosed, but her pain improved spontaneously and she was not offered treatment at that time.

At follow up 2 months later she had recurrent abdominal pain and an X-ray revealed that the oval gas shadow has significantly increased in size. One day after this investigation she was admitted as an emergency with localized peritonitis over the mass in the right iliac fossa. At laparotomy a large cystic mass adherent to the sigmoid colon, caecum, ascending colon and right ovary and tube was found. Blunt gentle finger dissection showed the mass to be connected to the sigmoid colon by a narrow neck (*Figure 1*). There was evidence of local inflammation around the lump but not in the rest of the peritoneal cavity, and the sigmoid colon was not inflamed. The cystic mass was resected with a disc of sigmoid colon at its origin leaving a small hole in the colon which was repaired in two layers. She made an uneventful recovery, was symptom free when reviewed in the outpatient clinic and remains well 7 years after surgery. Histology revealed that the cyst wall was composed of connective tissue, was lined with inflammatory granulation tissue including foreign body type giant cells, and included fragments of faecal matter.

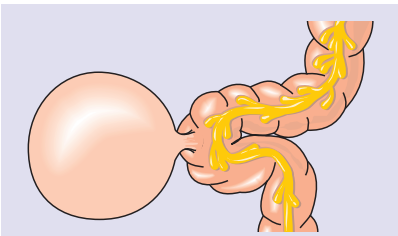

Figure 1. A giant sigmoid diverticulum presenting as an inflammatory mass in the right iliac fossa, involving the right ovary, tube, small bowel and caecum.

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