SHORT REPORT

Spontaneous Passage of a ‘Colon Cast’ Following Aortic Bypass Operation: A Case Report

R.S. Anaspure* and T.R. Cheatle

Vascular Surgery Unit, Oldchurch Hospital, BHR NHS Trust, Waterloo Road, Romford, Essex RM7 0BE, UK

Ischemic colitis is a well-recognized complication following repair of abdominal aortic aneurysm (AAA). Major surgery is required in cases of full thickness necrosis. This case describes the passage of a cast of the colon, caused by differential sloughing of the mucosa with preservation of the muscle layer at the level of the rectum, a rare manifestation of the condition.

Introduction

Ischemic colitis is a dramatic but well-recognized complication following repair of abdominal aortic aneurysm (AAA). Major surgery is usually required following this complication and the mortality rate is high. This case describes an unusual manifestation of the condition.

Case Report

A 63-year-old man was incidentally found to have AAA on routine radiograph of abdomen. CT scanning revealed an 8 cm abdominal aortic aneurysm. During operation an inflammatory juxta-renal aneurysm was found. Surgery was difficult. Despite three attempts, a watertight proximal anastomosis could not be secured. Eventually the aneurysm neck and the iliac orifices were oversewn and an axillo-bifemoral bypass graft was performed. Thus neither internal iliac artery received antegrade flow. The status of the inferior mesenteric artery was not recorded. Throughout the operation his blood pressure and central venous pressure was well maintained except for an episode of hypotension, during which urine output was reduced to 25 ml over 2 h. This was managed with blood transfusion, colloids and a dopamine infusion, which was continued for 48 h.

On the second post-operative day he developed watery diarrhoea without passage of blood or mucus. He had mild abdominal pain but no convincing tenderness could be elicited. The white cell count was $10.6 \times 10^9/l$. Stool cultures did not show any abnormal growth and Clostridium difficile toxin was not detected. He was treated symptomatically and initially improved. He was discharged on the 14th post-operative day. Loose motions persisted after discharge.

On the 16th post-operative day he noticed a 2 cm length of tissue hanging from his anus and 2 days later he passed a foul smelling grey-colored, irregular piece of tissue $13 \times 4 \text{ cm}^2$ in length (Fig. 1). Microscopic examination confirmed necrotic colonic mucosa and submucosa. Clinically his condition was unchanged with persistent loose motions about six times a day. He then developed anal pain. Because of this, he was unwilling to undergo digital or sigmoidoscopic examination. Eventually he agreed to undergo flexible sigmoidoscopy under general anesthesia approximately 60 days after his operation. This revealed a tight stricture about 5 cm from the anal verge. The colonic mucosa proximally was normal. The stricture was dilated with serial rectal dilators. Following this, his frequency, loose motions and anal pain gradually settled.

* Corresponding author. Mr R.S. Anaspure, MRCS, Old Church Hospital, Romford, Essex RM7 0BE, UK.
E-mail address: ranaspure@hotmail.com
Discussion

The incidence of ischemic colitis is between 6 and 7%.\textsuperscript{1,2} Typically it causes full thickness necrosis of the left-sided colon and requires urgent laparotomy and resection. Passage of a cast of the colon is rare. Eight similar cases are reported.\textsuperscript{3} Six were in association with aortic surgery and only two were managed conservatively. Differential sloughing of the mucosa with preservation of the muscle tube at the level of the rectum is probably due to the fact that the mucosa is supplied principally by the superior rectal artery, a branch of the inferior mesenteric, whereas the muscular layers are supplied by the middle rectal artery, derived from the internal iliac artery.\textsuperscript{4} Thus retrograde of the internal iliacs in this case was probably sufficient to keep the muscle, but not the mucosa, viable. This sub-acute manifestation of lower colonic ischemia can, as shown by this case, be managed conservatively under close observation.

References


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