

Large Bowel Cancer in a Young Adult Presenting as an Acute Intussusception — A Case Report

A.Y. Jasmi, FRCS
A.R. Zain, FRCS
A.R. Hayati, DCP*

*Department of Surgery, * Department of Pathology, Faculty of Medicine, Universiti Kebangsaan Malaysia, Jalan Raja Muda, Kuala Lumpur*

Summary

A 14 year old Malay boy with an adenocarcinoma of the transverse colon is reported. A lesion was discovered early when he presented with an uncommon complication in the form of a bowel intussusception. Emergency segmental colonic resection was performed, followed later by an extended left hemicolectomy following histological confirmation of the disease. Benign adenomatous polyp is believed to be the predisposing condition. Both rarities, colorectal cancer in young adults and adult intussusception, are discussed.

Key words: Colorectal carcinoma, young patients, adult intussusception

Introduction

Colorectal cancer is not uncommon in Asians and even though the peak age group is still the fifth and the sixth decade, the disease has been seen more often in young patients under the age of 40 years¹⁻⁵. Predisposing factors appear to be present more often in the young patients who developed colorectal cancer than the older age group and include familialcolic, cancer family syndrome, adenomatous colonic polyps and inflammatory bowel disease^{6,7}. Clinical presentation is similar to that seen in the older patients¹⁻³ although they tend to have more advanced disease when first diagnosed^{3,7}. Complication rates are probably similar to those of large bowel cancer in the general population. One of the rare complications is that of an adult intussusception.

We report a case of a young adult who presented with an acute colo-colic intussusception due to an adenocarcinoma in the transverse colon.

Case Report

A 14 year old Malay school boy was referred from Bentong for a sudden onset of severe, intermittent, colicky abdominal pain in the left hypochondrium of 1 day duration accompanied by nausea and vomiting. Two weeks before, he had suffered similar pain but of less intensity following which he passed bouts of loose stools mixed with mucus and blood. He was thought to have gastroenteritis and was treated at the district hospital with Metronidazole. The symptoms appeared to have subsided until the day of the present admission.

Clinically, he was afebrile but was in severe pain. His abdomen was soft and not distended. A tender elongated mass was palpable in the left upper quadrant. Rectal examination revealed some mucus mixed

with blood. A diagnosis of an acute intussusception was made and the patient was prepared for emergency surgery.

Through a left upper transverse incision, a colo-colic intussusception was found with the intussusceptum reaching midway down the descending colon. It reduced spontaneously as the transverse colon was held and there was a small, firm nodular mass felt in the distal third of the transverse colon with an outer umbilication on its serosal surface (Fig 1). This was the lead point of the intussusception. The intussuscepted segment was not gangrenous and the bowel proximally was not distended. There were no enlarged lymph nodes. No other abnormalities were found. As the lesion was judged to be benign, a limited resection of that segment of transverse colon was performed. As the bowel was fairly clean and not distended, a primary end-to-end anastomosis was carried out. Post-operative recovery was uneventful and the patient was discharged after a week.



Fig 1: An umbilication is seen on the serosal surface of the distal third of the transverse colon marking the site of the nodular mass (the lead point of the intussusception)

Macroscopically, the resected segment of transverse colon showed a raised nodular lesion measuring 2.5 centimetres in diameter (Fig 2). Histological sections revealed poorly differentiated mucin secreting malignant cells forming irregular glands and signet rings. There was abundant extracellular mucin. The malignant cells were seen to infiltrate the muscularis propria. Features were of a mucinous adenocarcinoma (Fig 3).

The patient was readmitted about 6 weeks later for an elective operation. A pre-operative colonoscopy showed 3 small polyps in the descending colon. An extended left hemicolectomy was then carried out with primary end-to-end anastomosis. Histological examination showed no evidence of malignancy anywhere in the resected large bowel and the 3 small polyps were benign adenomas. Three lymph nodes recovered in the mesentery showed only reactive changes.

There was no history of colonic cancer or any other large bowel disease amongst the family members. The young patient has been well since then and is presently on regular long-term follow-up and surveillance. Arrangements were also made to screen the family members.

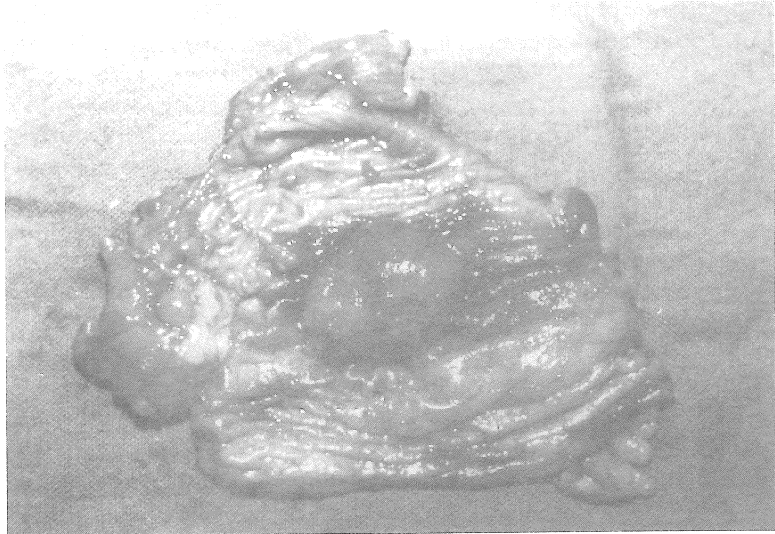


Fig 2: The resected segment of transverse colon laid open showing the tumour nodule

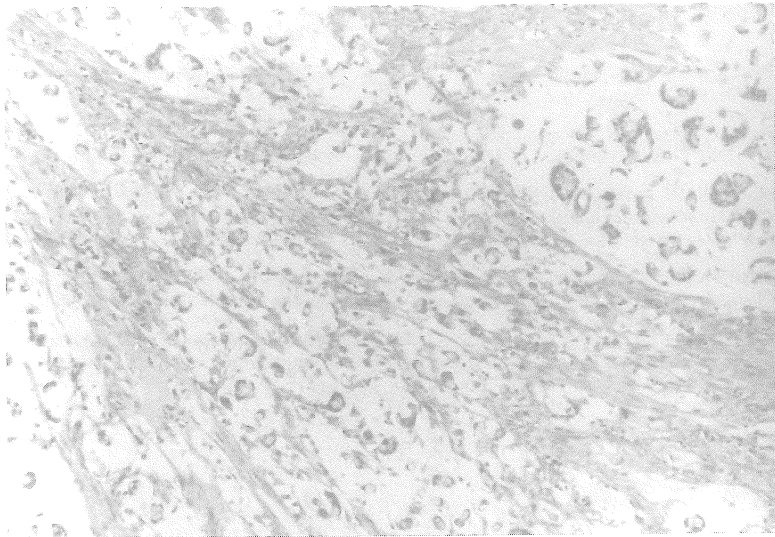


Fig 3: Poorly differentiated mucinous adenocarcinoma infiltrating the muscularis propria (H&E, X 10)

Discussion

When adults present with bowel intussusceptions, unlike the childhood condition, more than 80% are caused by a demonstrable bowel abnormality, and approximately 40% by primary or secondary malignant neoplasm^{8,9}. Others may be due to parasites and enteric infections particularly in certain tropical areas¹⁰. Symptoms are characteristic of partial intestinal obstruction. As illustrated in our patient, intermittent cramping abdominal pain, diarrhoea, hematochezia and a palpable abdominal mass are the usual clinical features.

Since there is a high incidence of malignant lesions in adult intussusceptions, particularly in the colo-colic type, treatment is surgical. Therapeutic hydrostatic reduction with barium enema should not be used as intraluminal seeding or venous embolization of malignant cells can occur during the procedure⁹. Primary surgical resection and anastomosis is feasible in most colonic intussusceptions since the majority of them present with partial luminal obstruction⁹, as also seen in our case. Despite the lack of adequate pre-operative bowel preparation, mortality and morbidity rates are minimal.

The prognosis of colorectal cancer in the young adults has always been considered unfavourable due to the higher proportion of advanced disease at presentation, particularly stage Dukes' C disease, and the aggressive biological behaviour of the tumour^{1,3,7}. The majority are poorly differentiated carcinomas and associated with mucin production¹.

The onset of acute colonic intussusception in our patient had led to the discovery of the malignant lesion while it was at Dukes' B stage. Colonoscopy did not reveal a colon carpeted with multiple polyps therefore excluding the diagnosis of familiar polyposis coli. It is therefore hoped that the radical colonic resection was curative. However, the presence of the small adenomatous polyps has placed the patient at risk of developing metachronous lesions. A long-term surveillance is mandatory.

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