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RECTAL CARCINOMA IN A NINE YEAR OLD NIGERIAN MALE CHILD: CASE REPORT

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RECTAL CARCINOMA IN A NINE YEAR OLD NIGERIAN MALE CHILD: CASE REPORT

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SUMMARY

Carcinoma of the colon and rectum are rare in children and under the age of 40 years. A case of colo-rectal carcinoma in a nine-year-old Nigerian male child is reported. Family history was significant in the patient, it revealed that his father died three years earlier because of chronic diarrhoea and mucoid stool with associated on and off constipation and one of his elder brothers died eight years ago of colonic cancer at the age of twenty years. Exploratory laparotomy was done for the patient which revealed fixed rectosigmoid tumour with metastases to the liver, omentum and small intestine and ascites was also found. Hartmann's procedure with sigmoid colostomy was performed and the tumour was resected. Histological report of the biopsy specimen was consistent with poorly differentiated adeno-carcinoma. To the best of our knowledge, the youngest patient recorded in the literature is seven years old, which is younger than our patient, but this is still the youngest in our records.

INTRODUCTION

Colorectal carcinoma is generally a disease of the older age groups, with equal incidence in males and females (1). The incidence begins to rise significantly after the age of 40 to 45 years until it peaks between 75 and 80 years (1). The probability of developing colorectal carcinoma from birth to age 70 is 4% (1). Colorectal carcinoma is uncommon in Africans as against the old popular belief (2) but it is still very rare in children (2-4). Studies of colorectal carcinoma have suggested a correlation with dietary habits (3-5) geographic location and genetic factors (3,5). The aim of this paper is to present unrecognised colorectal carcinoma in a Nigerian child until it reached an advanced stage.

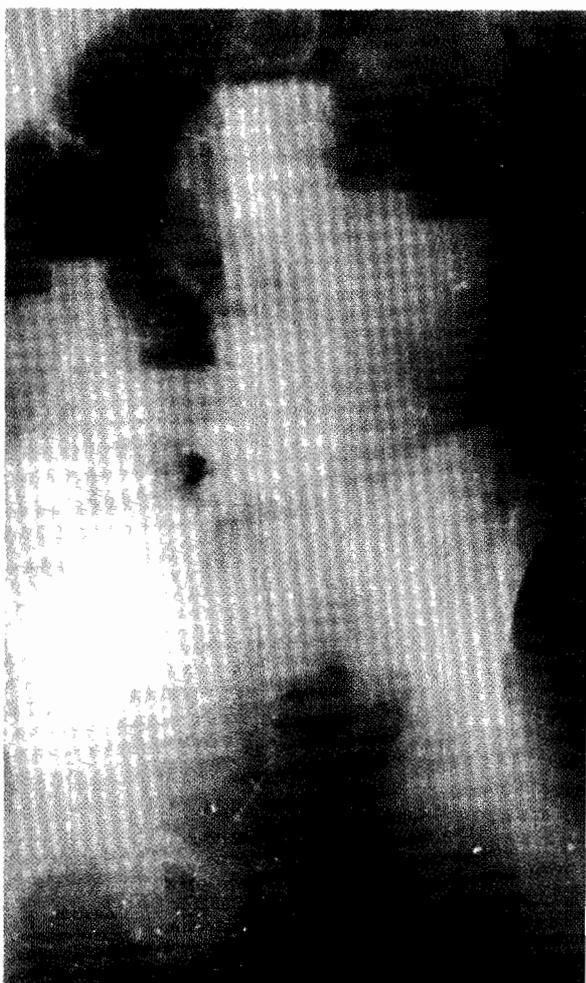
CASE REPORT

T.R. a nine-year-old, Nigerian presented with a six month history of abdominal pain, recurrent

abdominal distension, poor feeding, chronic constipation, occasional fever, bloody-stool and progressive weight loss. The abdominal pain, which was located in the left lower quadrant, was dull in nature. It was on and off and non-radiating. There were no aggravating or relieving factors.

There was associated recurrent abdominal distension with change in bowel habits, anal protrusion and haematochezia. He also complained of low back pain, which was worse at night and severe enough to disturb his sleep. Family history revealed that one of his elder brothers died eight years earlier of colonic carcinoma and his father died of chronic diarrhoea, mucoid stool and an on and off constipation three years after the death of the former.

He had consultations at four different private hospitals during which he was dewormed and treated with metronidazole, tetracycline and intravenous fluids to no avail. He later presented with intestinal obstruction (Figure 1).

Figure 1*X-ray showing features of intestinal obstruction*

expired 35 days after surgery. The histological features are consistent with poorly differentiated adenocarcinoma of the rectum, (Figure 2).

Figure 2*Poorly differentiated adeno-carcinoma of the rectum.**Magnification: ×200*

The abdomen was uniformly distended with visible bowel loops. There was no palpable intra-abdominal organomegaly and demonstrable ascites. Rectal examination revealed a firm, irregular, almost circumferential intraluminal mass about seven centimetres from the anal verge.

Obviously rectal examination was not performed on this patient despite the fact that he was seen by many doctors before we saw him and if at all, the rectal mass was not detected.

He had an emergency laparotomy at which a firm fixed rectal mass extending to the sigmoid colon with metastasis to the liver and omentum was found. There was minimal ascites. In view of his poor pre-operative clinical status, he had a colostomy established and a resection of the colonic tumour. The patient made an initial recovery but later progressively deteriorated and eventually

DISCUSSION

Colorectal carcinoma is quite rare in patients less than 40 years of age and more especially in children (2-4). To the best of our knowledge, the youngest so far recorded in the English Literature is a seven year old (4,5).

In 1988, Ajao *et al* (6) reported on eleven cases of colorectal carcinoma over a two year period, approximately 50% of these were under the age of 30 years. In an earlier review of colorectal carcinoma at the University College Hospital, Ibadan, Nigeria, there were 29 cases seen over 30 months period of which, four of these (13.8%) were under the age of 30 years, the youngest in the series was 18 years (2). Recalde and Douglas (3) reported the youngest in their own series to be 11 years while recently Powsner *et al* (7) reported a sixteen year old girl with rectal carcinoma. Our patient was nine years old.

This patient could not be seen as a case of familial polyposis. This is transmitted as a Mendelian dominant, non-sex-linked trait and as such, it is expected that half of the offspring will be affected. The polyps often occur probably in the third decades of life (8-10) though this patient had some degree of hereditary predisposition, considering that the immediate elder brother died of colonic cancer eight years earlier and the father also died of some features similar to colonic cancer, but this is difficult to establish.

Predominant symptoms in this patient were abdominal pain, weight loss, rectal bleeding, abdominal distension with chronic constipation and anal protrusion. Abdominal pain, distension and masses are ominous symptoms and are later complications of the disease and reflect the more advanced lesions found in this age (3,4,11). Most workers believe that the unfavourable prognosis in young patients is mainly due to lack of awareness of possibility of colorectal carcinoma in this age group which often results in delay in diagnosis, investigation and treatment (2-4,7,12).

This patient died soon (35 days) after diagnosis and surgery. This is not surprising because the disease is usually already advanced as a result of delay in diagnosis. He had been to four different hospitals without making the diagnosis. This delay is also reported by Powsner (7). Other clinical factors that connote poor prognosis include presentation with obstruction, poor differentiation, mucinous type tumour and vascular invasion (3,4,11,13-16).

This case was diagnosed by a digital rectal examination. And to underscore the delay in diagnosis, Spiro had estimated six months for a tumour to reach one-fourth of the way around the lumen of the intestine and about 18 months to penetrate the serosa (18). Therefore, for most of the lesions, that are almost circumferential and detected by clinical digital rectal examination, there had been a lot of delay in diagnosis. Obviously, digital rectal examination was not performed in the patient. Hence, high index of suspicion is required to make an early diagnosis (2,7).

The most often site of location is the rectosigmoid (2-4,11) as in this patient. The reason for this is not quite known but may have no relationship to the cause as reported by Recalde *et al* (3). However, Pitluk and Poticha had advocated congenital defects in the normal mucosa barrier to cancer formation

which might play a role in the younger patients (3,11).

Investigations must be through as in adult patients. It is only by adequate and thorough diagnostic evaluation that, the carcinoma be diagnosed at an early age (3,4,12). Though the patient was diagnosed on digital rectal examination, nonetheless, procto-sigmoidoscopy, double contrast barium studies will make detection easy and fibre-optic colonoscopy will make synchronous lesions be detected to inspection and biopsy. The same goes for the treatment modalities as in adult patients. Younger patients too must be given adequate chemotherapy and should not be denied the benefits of other selected adjuvant therapy (2-4,11,12).

In conclusion, colorectal carcinoma can occur in children and this should be borne in mind in children with gastrointestinal (GIT) symptoms that do not respond to regular treatment. This case also shows the importance of digital rectal examination even in children with GIT symptoms.

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