Carcinoma of the Colon in an Adolescent

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ABSTRACT

A case of carcinoma of the colon in childhood is reported. There was remarkable absence of gastro-intestinal symptoms. Reasons for the poor prognosis in this condition are discussed as well as the possibilities for improving survival.

INTRODUCTION

Although carcinoma of the colon is one of the commonest malignancies of man, it is rare in childhood. It is particularly uncommon under the age of ten years and although there is an inexplicable rise at puberty, the incidence is still quite low under the age of eighteen (Cain and Longino, 1970). Andersson and Bergdahl (1976) reviewed the literature and found a total of 81 cases aged 15 years and under. This paper describes a case of carcinoma of the colon in a teenager who had no gastro-intestinal symptoms.

CASE REPORT

A 15-year-old negro girl, admitted to hospital with a one-month history of increasing jaundice, generalised pruritus, dark urine and pale stools, had a nodule on her umbilicus for six months which had been getting larger and had bled when scratched. She gave no history of weight loss, anorexia, abdominal pain, vomiting, constipation, diarrhoea or blood in the stools.

On examination, this afebrile, well-nourished girl had obvious jaundice but no lymphadenopathy. There was a 2 cm umbilical nodule with deep invasion of the surrounding abdonimal wall over an area of 4 cm. In the right lumbar region of the abdomen, there was a hard, irregular, freely mobile mass 7 cm in diameter. She had neither ascites nor hepatomegaly. Rectal examination showed a mucosa which was freely mobile over a large rectal shelf.

A diagnosis was made of carcinoma of the ascending colon with secondaries to the umbilicus, Pouch of Douglas and porta hepatis.

Laboratory results were as follows: haemoglobin level 10.7 gm/dl; white cell count 5.6 x 10^9/1; SGPT 170 i.u./l; alkaline phosphatase level 185 i.u./l; total bilirubin level 220 µ mol/l with a direct of 164µ mol/l; serum albumin level 38 gm/l and globulin level 27 gm/l.

Biopsy of the umbilical nodule showed adenocarcinomatous deposits. Sigmoidoscopy was normal but barium enema revealed a large irregular filling defect in the hepatic flexure of the colon.

Laparotomy was not performed because of her widely disseminated disease and the absence of intestinal obstruction.

Five months later, she had marked muscle wasting, ascites, pedal oedema, ulceration of the umbilicus and a hard nodular liver 10 cm below the right costal margin. She then passed blood in the stools for the first time, and died eight months after her initial presentation.

DISCUSSION

The three commonest presenting symptoms of colonic carcinoma in this age group are abdominal pain (90%), vomiting (40%), and constipation (25%) (Middlekamp and Haffner, 1963). Abdominal pain was a

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presenting feature in all three cases reported by Cain and Longino (1970). In our case which presented with obstructive jaundice and an umbilical nodule, there was a remarkable absence of gastro-intestinal symptoms.

Carcinoma of the colon in the young is usually discovered after the disease is widely disseminated. The overall 5-year survival rate is less than 3% (Andersson and Bergdahl, 1976). This is due to delay in diagnosis as well as the histopathological pattern of the tumour in childhood. In 50% of these cases, the adenocarcinoma is of the highly invasive signet-ring type (Middlekamp and Haffner, 1963) whereas in the adult only about 5% is of this variety (Hoerner, 1958). Although the prognosis is poor, there have been three cases of long-term survival, the patients being alive and well, sixteen (Wolloch and Dintsman, 1974), eight and nineteen years (Middlekamp and Haffner, 1963) after operation. All these patients had well-differentiated adenocarcinoma. Hoerner (1958) reported another case of an 18-year-old boy who had resection of a highly malignant adenocarcinoma with some areas showing marked anaplasia. He was alive and well 9 years after surgery. However, the mucinous adenocarcinoma is highly malignant (Ackerman and del Regato, 1962) and there have been no reported 5-year survivals in this group.

Familial polyposis and ulcerative colitis, well-known predisposing factors in adults, are not significant features of the disease in this age group (van Langenberg and Ong, 1972; Smith et al, 1976). Of the 27 young cases reviewed by Ahlberg et al (1980) all patients with associated familial polyposis or ulcerative colitis were over 22 years of age.

The youngest well-documented case is a 9-month-child who had a mucinous adenocarcinoma (Kern and White 1958). Thus, age is no barrier to the disease. Constant awareness of this fact may lead to earlier diagnosis and definitive therapy with improvement in prognosis for these patients.

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