

# Colloid Carcinoma of Rectum in a 11 year Old Child

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## Abstract

*The rarity of rectal carcinoma in children has prompted us to report this patient who presented with bleeding per rectum and constipation. Histopathological examination of biopsy revealed the growth to be a colloid carcinoma of rectum and it was inoperable on exploratory laparotomy. There are three factors which contribute to an overall poor prognosis of rectal carcinoma in children viz. delay in diagnosis, advanced stage of disease and poorly differentiated histology (J Postgrad Med 1993; 39(4):218-219)*

**Key Words:** Gastrointestinal haemorrhage, intestinal obstruction, prognosis in.

Primary gastrointestinal malignancies constitute only 1% of paediatric neoplasms and therefore, remain unsuspected in children, often presenting late with symptoms of intestinal obstruction<sup>1</sup>. Less than 200 cases of carcinoma of large bowel have been reported in children. Unlike adult colonic malignancies, the overall prognosis is poor because of inadvertent delay in diagnosis, advanced stage of the disease at presentation and lack of histological differentiation. Appendicitis is a diagnosis, which is commonly entertained in such children at presentation, and invariably post-appendectomy persistent symptoms or ensuing complications lead to the diagnosis of the rectal malignancy<sup>2</sup>.

## Case Report

An 11-year-old girl was admitted to our unit with complaints of bleeding per rectum, constipation and mucus in stools since one month. This was accompanied by persistent lower abdominal pain. She underwent an emergency appendectomy in a private hospital 2 months prior to presentation to us. There was history of loss of weight and appetite since the time of surgery. On examination, the lower abdomen was tender and showed a well-healed scar of previous appendectomy. Perineum showed tender, pedunculated hard nodules around the anus and anal stenosis prevented a digital examination. Her VDRL was negative.

An emergency sigmoid colostomy was carried out along with biopsy of the rectal mass, which showed it to be a colloid carcinoma (Fig 1). Distal cologram done through the colostomy revealed a long narrowing of a segment of rectum upto the recto-sigmoid junction with mucosal irregularities suggestive of malignancy. On exploratory laparotomy the mass was seen arising from

the rectum and was stuck to the lateral and posterior pelvic walls. It was inoperable. Liver and rest of the intestines were not affected.

Subsequently after 3 months, the child developed intestinal obstruction and was re-explored. This showed the entire bowel and peritoneum to be studded with metastases. The small bowel was kinked due to entrapment in a metastatic mass and thus obstructed at two sites. Only a palliative intestinal bypass and an ileostomy were done.

## Discussion

Colorectal malignancies are extremely rare in paediatric age group and the youngest recorded case is a 9-month-old child. In general, these malignancies in children have a very poor prognosis and are usually beyond the scope of operative correction. The main reasons attributed for this by Golligher are delay in the diagnosis, advanced stage of the disease at presentation and poor histological differentiation of the malignancy<sup>3</sup> in children, there is a higher incidence of involvement of the right and transverse colon (53%) compared with adults (33%) and a far lower rate of involvement of rectum (10%).

In paediatric age group, there are far more common causes of abdominal pain than rectal carcinoma. Recurrent abdominal pain affects 10-15% of school going children, but an organic pathology is found in 10% of these. In a series of colorectal carcinomas published by Brown *et al*<sup>2</sup>, colonic carcinoma has presented as a great imitator with a pre-operative diagnosis made only in 1 patient. Quite a few patients of carcinoma of rectum had appendectomy done prior to detection, which was complicated by post-surgical

faecal fistulae before a correct diagnosis was made. Iron deficiency anaemia, which is a significant marker in adults, does not prove valuable in children because of multifactorial causes viz. poor nutrition, parasite infestation and rectal polyps. The stool occult blood test is a simple non-invasive procedure and if positive should arouse suspicion of a large bowel pathology requiring further investigation<sup>4</sup>.

Because the disease is unsuspected, presentation is delayed with upto 60% having luminal obstruction as opposed to 18% in adults. At operation, complete resection is possible in less than 40% of cases as against the 90% possible resection in adults. Resection even palliative is always preferable to bypass, because it effectively relieves the obstruction and also decreases the tumour load<sup>5</sup>.

The prognosis with a colloid carcinoma is very poor. The colloid absorbs water, swells and invades local tissues, thereby promoting spread of malignant cells. It also interferes with the immune recognition of carcinoma cells due to mucopolysaccharide coating<sup>6</sup>.

It is important to remember that although rare and apparently presenting in an innocuous manner, carcinoma of rectum does occur in children<sup>7,8</sup>. Patients with blood or mucoid discharge per rectum and chronic abdominal pain should undergo a careful abdominal and rectal examination. The development of

postappendectomy symptoms should alert the surgeon to the possibility of a distal colonic pathology. The overall prognosis of the carcinoma of the colon and rectum in children will only improve with increased awareness leading to earlier diagnosis of the condition.

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