

## Case Report (IV)

# Colonic Obstruction in a Paediatric Patient due to Sigmoid Colon Lymphoma - Case Report and Review of Literature

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### ABSTRACT:

**Non-Hodgkin's lymphoma is a common childhood malignant neoplasm. It occurs in the abdomen in approximately 35% of the cases. Nearly one half of these have a primary site in the GIT. We report a case of primary non-Hodgkin's lymphoma involving the sigmoid colon in a 10-year-old patient who presented with colonic obstruction. Primary complete resection of the mass was done. Definitive diagnosis was of Non-Hodgkin's lymphoma.**

### INTRODUCTION

Non-Hodgkin's lymphoma is the third most common childhood malignant neoplasm.<sup>1</sup> It occurs in the abdomen in approximately 35% of the cases. Nearly one half of these have a primary site in the GIT.<sup>2</sup> The most common presenting site in non Hodgkin's lymphoma of childhood (30-50%) is intra-abdominal. Widespread abdominal disease is reported to be twice as common as localized gastrointestinal lymphoma. Intestinal lymphoma usually originates in the ileocecal region in childhood<sup>3</sup>. Involvement of the sigmoid colon is not common.<sup>4</sup> We report a case of primary non-Hodgkin's lymphoma involving the sigmoid colon that presented as a colonic obstruction. Literature search did not reveal any similar case report.

### CASE REPORT

A 10-year-old boy presented to us with the complaints of distension of the abdomen since 3 days, pain in abdomen since 15 days, bleeding per rectum since one week, constipation since one week.

The patient was apparently normal 1 month back, when he started having intermittent colicky pain on the left side of the abdomen. There was history of passing frank blood on defecation in small quantity. There was no history of alternating constipation and diarrhoea. There was no complaint of vomiting. The patient did not give history of weakness, loss of weight/appetite, fever, sweating in night. There was no h/o of urinary complaints. On examination the boy was thin built weighing 15 kg with stable vitals. He was markedly pale but there was no pedal edema or generalized lymphadenopathy. Per abdominal examination revealed a generalized fullness of the abdomen but no visible loop/peristalsis.

A lump was palpable in the left iliac fossa measuring 11 x 8 cms. It was slightly tender to palpate with a smooth surface. It was firm in consistency, with restricted mobility. No other organomegaly was found.

On per rectal examination, there was a mass felt high up in the rectum on bimanual examination. The lumen was completely obliterated. The upper margin could not be felt. Investigations: Hb-8.7%, WBC-10,200 cmm,

urea-10mg%, S. creat-0.9, mg%, S. LDH-532 IU, Liver function tests-normal. X-ray abdomen revealed a few air fluid levels. X-ray chest-normal. USG abdomen-showed a mass in the sigmoid colon. There was no retroperitoneal lymphadenopathy or free fluid. The liver and the spleen were normal. CT Scan abdomen showed a 10 x 6 cms mass involving the lumen of the sigmoid colon of mixed density. Rest of the abdomen did not show any evidence of tumour, lymphadenopathy or involvement.

The patient was taken up for laparotomy. There was a sigmoid mass of the size of 10 x 8 cms in the sigmoid colon about 5 cms proximal to the peritoneal reflection. There was no ascites, mesenteric lymphadenopathy. The liver/spleen were normal. A wide resection with end-to-end anastomosis was done. The patient recovered well.

The histopathology report was suggestive of non-Hodgkin's lymphoma-diffuse large B cell type. Full thickness involvement of colon with pericolic infiltration of fat was noted. Bone marrow biopsy was done postoperatively which showed no involvement. Immunohistochemistry: The tumour cells showed expression of CD45, CD20 & CD43 and were negative for CD3 & CD99.

The patient was started on continuous CHOP regime. The child has completed the Induction, CNS prophylaxis, and the Maintenance phase of continuous CHOP regimen. He is presently on oral maintenance with 6-mercaptopurine and methotrexate and is doing well.

## DISCUSSION

Non-Hodgkin's lymphoma is a third common childhood malignant neoplasm.<sup>1</sup> Together with Hodgkin's disease, it constitutes 15% of all malignancies in the preadolescent and adolescent age groups.<sup>5</sup> Non-Hodgkin's

lymphoma is 1.5 times more common than Hodgkin's in this age group. It occurs in the abdomen in approximately 35% of the cases. Nearly one half of these have a primary site in the GIT. Children with certain immunodeficiency syndromes are known to have a predisposition to development of lymphomas.<sup>6</sup> The common location of the lymphoma in the gastrointestinal tract is in the gastric and jejunum. Intestinal lymphoma usually originates in the ileocecal region.<sup>3</sup> Adult gastrointestinal non-Hodgkin's lymphoma occurs mostly with a gastric primary site. Records of colonic lymphomas are few in the literature as compared to malignant lymphomas elsewhere in the gastrointestinal tract. Involvement of the sigmoid colon is rarely described in the literature.<sup>7</sup> A male preponderance is commonly reported with childhood non Hodgkin's lymphoma.

The most common symptoms are intermittent colicky abdominal pain. Also there can be anorexia, weight loss, nausea, vomiting, fatigue, malaise and constipation. The most common sign on diagnosis are a palpable abdominal mass and occult bleeding.<sup>2,4</sup>

Correct preoperative diagnosis is rare, with laparotomy and tissue diagnosis mostly invariably required. The presence of intussusception in a child older than 2 years documented by barium enema should prompt consideration of the possibility of ileocecal lymphoma. When an intussusception is reduced by barium enema in an older child there should be careful evaluation to rule out an associated lesion of the bowel in the form of CT scan and even laparotomy.<sup>9</sup>

Mortality is known to be strongly correlated with stage of disease at diagnosis and treatment. Appropriate surgical management of the gastrointestinal non Hodgkin's lymphoma of childhood depends on the stage of disease at

presentation. Bulky abdominal primary tumours whether stage III intestinal or extra intestinal in origin are usually rapidly growing and complete resection rarely can be accomplished. Aggressive debulking has been advocated prior to beginning chemotherapy but it is not of proved value with the possible exception of Burkitt's tumours where greater than 90% resection of the mass is accomplished.<sup>10</sup>

Surgical treatment in localized disease is controversial. Some authors emphasize the need to resect as completely as possible, whereas others downplay the importance of surgical intervention with the advent of increasingly successful combined modality therapy<sup>11</sup>. Even if complete resection is done, only surgery is insufficient therapy for children with non Hodgkin's lymphoma and further treatment with systemic chemotherapy is a must.<sup>2,4,12</sup>

With current protocols if the localized disease is completely removed surgically, the risk of bleeding and perforation at the site of residual tumour is decreased. With complete gross resection there also can be reduction in the duration and intensity of the chemotherapeutic regimen without sacrificing survival. This minimizes the early and late complication of curative therapy such as prolonged myelosuppression, growth failure, sterility, cardiomyopathy and second neoplasm.

Therefore, despite impressive advances in medical management, full surgical resection in localized disease is indicated. It resolves the acute abdominal problem; obstruction or intussusception and establishes accurate

diagnosis, histological type, and extent of disease. It also prevents late complications of bleeding and perforation and decreases the required chemotherapy and the need for intervention with its associated morbidity.

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