

CASE REPORTS

NON HODGKIN'S LYMPHOMA IN HERNIATED SIGMOID COLON PRESENTING AS IRREDUCIBLE LEFT SIDED INGUINAL HERNIA – A CASE REPORT AND REVIEW OF LITERATURE

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Abstract:

Tumors presenting in the inguinal hernia sac are considered to be extremely rare, with the more common neoplasms metastasizing from the gastro-intestinal tract, ovary and prostate. A case of non-Hodgkin's lymphoma was identified in herniated sigmoid colon during hernia repair while the hernia sac appeared unusual to the operating surgeon and the surgeon found sigmoid colon formed the posterior wall of hernia sac. This part of sigmoid colon could not be reduced and contained a firm growth, evaluation by the pathologists showed a malignant neoplasm, composed of anaplastic lymphocyte having eccentric plasma nuclei and abundant cytoplasm. Histologic diagnosis is non-Hodgkin's lymphoma. This is the first report of non-Hodgkin's lymphoma found in herniated sigmoid colon. This case was reported in the Department of Surgery, Dhaka Medical College Hospital, Dhaka, and illustrates the value of routine microscopic evaluation of hernia sacs found from inguinal/femoral herniorrhaphies as it may be the primary presentation of an asymptomatic metastatic lymphoma. Additionally, it underscores the importance of surgeons' role in screening by submitting only macroscopically abnormal specimens for microscopic evaluation.

Key words: Inguinal Hernia, Non-Hodgkin's Lymphoma (NHL).

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Introduction:

The gastrointestinal tract is the most common site of involvement of extra nodal non-hodgkins lymphoma occurring in up to 40% of cases¹. However, the colorectal area is a rare site for primary lymphoma as most GI-NHL originate from the stomach and small intestines, probably due to their prominent lymphoid tissue². Primary colorectal lymphoma constitutes less than 10% of all GI lymphomas and a small proportion of colorectal malignancies. Although several cases of primary lymphoma throughout the large intestine have been reported in the literature,

the sigmoid colon non-Hodgkin's lymphoma has been rarely reported as a site of origin for PCL. Here we report a case of primary non-Hodgkin's lymphoma involving the sigmoid colon that presented as a complete irreducible inguinal hernia.

Case Report:

A 65 year old male presented in Dhaka Medical College Hospital, Dhaka, with the complaint of left sided inguino-scrotal swelling for about 10 years. It was gradually increasing in size. Patient also complained about constipation with passage of hard stool. There was no history

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of abdominal pain, anorexia, weight loss, haematemesis, melaena or hematochezia. On physical examination, the patient was mildly anaemic, non-icteric, had no lymphadenopathy, his pulse was 84 beats/min. and regular, BP was 130/85 mm of Hg. There was a large swelling in left inguinoscrotal region. It was globular in shape, 20 cm × 15cm, and firm in consistency. Expansile cough impulse was positive and get above the swelling was not possible. The swelling was non reducible. Systemic examination revealed no abnormality. Total WBC count was 8600/mm³ and neutrophil count was 65%. Other routine investigations were within normal limit. Herniorrhaphy was planned. On exploration it was found to be a case of sliding hernia contained a firm growth and was difficult to reduce. Limited colectomy of herniated sigmoid colon with colocolic anastomosis was done. The anastomosed colon was then returned to abdominal cavity. Then herniorrhaphy was done. Post-operative period was uneventful. Histopathological report of multiple sections from the growth showed a malignant neoplasm, composed of anaplastic lymphocytes. Most of the cells have plasmacytoid appearance having eucentric placed nuclei and abundant cytoplasm and irregular nuclear membrane. Some multinucleated giant cells are also present. The tumor involved up to the serosa layer. Sections of the lymph nodes showed metastatic involvement of above described tumor sections of the distant and proximal resection margins were free of tumor. Overall microscopic features revealed diffuse non hodgkins lymphoma (lympho plasma cytoid type). During his discharge, the patient was referred to the Oncology Department for chemotherapy.

Discussion:

The colon is an uncommon site of involvement in non-Hodgkins lymphoma. The most common symptoms of colonic lymphoma are abdominal pain and weight loss with a palpable abdominal mass identified on physical examination in half of the patient. By far the most common sites of involvement are the ileocaecal region and caecum. However, the non-Hodgkins

lymphoma in herniated gut (sigmoid colon) is very uncommon. In most of hernial repairs, we do not perform any microscopical examination. In a study of over 22000 inguinal hernia repairs at Mayo clinic, 0.07% patients were found to have metastatic tumor. Among them, 40% were gastrointestinal origin, 20% ovary, 13% prostate, 13% mesothelioma, and 13% from unknown origin. The most common presenting symptoms were inguinal mass and abdominal or groin pain³.

Overall, less than 0.5% of hernia sacs contain primary or metastatic tumor⁴. Kassan et al., in evaluating 1020 inguinal and femoral hernias, questioned the cost effectiveness of sampling macroscopically normal hernia sacs, reporting that only 3 specimen (0.098%) showed abnormal pathology while appearing normal at the time of operation. In a review of the literature, these authors also concluded that in the rare case of a malignant tumor, 73.3% were identified macroscopically⁵.

In this case the herniated gut was sigmoid colon and presented as a case of sliding hernia. After exploration of hernia sac the bowel wall was found thickened. The gross appearance of the tumor may be annular or just a thickened bowel wall. The majority of the colon lymphomas are single, but can be multiple or diffuse in nature⁶. The lack of specific complaints and the rarity of intestinal obstruction probably accounts for the delay in diagnosis. These bulky masses can usually be palpated by simple physical examination, and viewed by ultrasonography of inguino-scrotal area. Complete blood count, liver function test, chest x-ray, peripheral smear for haematological studies and bone marrow biopsy are required to rule out systemic involvement and for staging the disease. Immunohistochemistry may be required in doubtful cases for sub classification. Combined modality of approach that includes surgical debulking and systemic chemotherapy is the preferred treatment⁷. Surgery alone can be considered as an adequate treatment for patients with low grade NHL disease that has not infiltrated beyond the submucosa⁸.

Twelve cases of lymphoma diagnosed at inguinal/ femoral hernia repair have been described previously. Mean age of patient was 54 years (range 23–76) with male predominance. The lymphomas presented as a unilateral groin mass, with most patients presenting asymptotically. Primary malignant spermatic cord tumors often present as inguino scrotal swelling, with primary spermatic lymphomas usually presenting either as a tumor in the groin or upper part of the scrotum⁹. Our literature review includes primary sigmoid lymphomas that presented as inguinal hernia and were discovered upon Herniorrhaphy.

Conclusion:

In summary, we report a case of non-Hodgkin's lymphoma in herniated sigmoid colon discovered incidentally at inguinal hernia repair. Literature review indicates that occult malignancies, diagnosed from routine histologic evaluation of inguinal and femoral hernial sac and its suspicious contents, would likely be identified with gross examination of the specimen. However, these patients' hernia sac contents were characterized by very subtle irregularities that were only detected upon histologic evaluation. The surgeon should meticulously inspect all hernia sacs and its contents and submit specimens with even subtle irregularities. Surgical resection is the mainstay of treatment for localized primary lymphomas followed by post operative chemotherapy. Finally, if routine histologic evaluation of all inguinal and femoral hernias is not feasible due to cost concerns, a limited

microscopic evaluation by pathology on grossly normal appearing sacs would reduce cost without compromising the identification of occult malignancy.

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