

Non Hodgkin Lymphoma Of Caecum- A Case Report

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Abstract: *The major site of extranodal Non Hodgkin lymphoma is the gastrointestinal tract. Involvement of the large intestine is rare in comparison to the stomach or small bowel. The colon is affected in only approximately 0.4% of cases. Complaints are nonspecific, requiring a high index of suspicion in order to establish the diagnosis. Here we report a case of a 38 year male who presented to the surgical out patient department with pain and mass per abdomen of 2 months duration and diagnosed as Non Hodgkin Lymphoma (NHL) of the caecum on histopathology.*

Keywords: *Non-Hodgkin lymphoma, extranodal, caecum, DLBCL.*

I. Introduction

Two thirds of NHLs and virtually all Hodgkin lymphomas present as enlarged non tender lymph nodes, remaining one third of NHLs involve the extranodal sites [1]. In 40% of cases, the major site of extranodal NHL is the gastrointestinal tract. Involvement of the large intestine is rare (10%-20% of all gastrointestinal lymphomas) in comparison to the stomach or small bowel [2]. Primary NHL accounts for 0.1%-0.5% of all malignant tumors of the colon and rectum which makes it the third most common large bowel malignancy after adenocarcinoma and carcinoid [2]. The most common histological subtype occurring in the colon and rectum is diffuse large B-cell lymphoma with frequency ranging from 47%-81% [2, 3].

II. Case Report

A 35 years male presented with pain and mass per abdomen since 2 months. On examination he had a mass in the right iliac fossa measuring 10 x 10 cms. On ultrasound a predominant hypoechoic solid mass was noted in the right iliac fossa suggesting gastrointestinal stromal tumor (GIST)/ lymphoma. CT scan of abdomen was done which showed a heterogeneously enhancing lesion in the right lumbar region suggesting GIST. Patient was posted for exploratory laparotomy, excision of tumor with ileo-transverse colon anastomosis was done.

On Gross, specimen consisted of ileum measuring 25 cms in length, part of colon measuring 14 cms in length with a lobulated mass in the center measuring 14 x 8 x 7 cms. On cut surface solid fleshy grey white tumor was seen involving the wall of caecum. Five lymph nodes were dissected. On Microscopy, sections studied showed ulcerated caecal mucosa with submucosa and muscularis propria showing diffuse infiltration of monomorphic neoplastic lymphoid cells which were large, round with vesicular nuclei and prominent nucleoli (Fig.1, 2 & 3). Sections studied from lymph nodes showed similar morphology (Fig.4). Features were suggestive of Non Hodgkin lymphoma of caecum and Immunohistochemistry (IHC) was advised.

On IHC tumor cells were positive for CD20/CD10/CD45 and negative for CD3/MPO/CD30/CD138 and EBV LMP1. Impression was given as Diffuse Large B-Cell Lymphoma (DLBCL), follicular center origin.

III. Discussion

Non-Hodgkin's Lymphoma (NHL) constitutes a group of disorders originating from the malignant transformation of lymphocytes and involving either the lymph nodes or extra nodal sites [3]. The colon is an uncommon site of involvement in Non-Hodgkin lymphoma. The most common symptoms of colonic lymphoma are abdominal pain and weight loss, with a palpable abdominal mass [4]. The standard criteria for the diagnosis of primary intestinal lymphoma were established by Dawson et al. (1961). Tumours were considered to be primary on the following grounds: (1) When the patient was first seen there was no palpable superficial lymphadenopathy. (2) Chest radiographs showed no obvious enlargement of the mediastinal nodes. (3) The white blood cell counts, total and differential, were within normal limits. (4) At laparotomy the bowel lesion predominated, the only lymph nodes obviously affected being those in its immediate neighbourhood. (5) The liver and spleen appear free of tumour [5, 6]. Primary intestinal lymphoma most commonly involves the ileo-caecal region, probably due to the high proportion of lymphoid tissue. Regional lymph nodes, if involved, are found to have a bad prognosis [3, 7]. Clinical diagnosis of GI tract lymphoma is very difficult and can only be made post-operatively when patient is operated for complications such as intestinal obstruction, hemorrhage and perforation [8].

On histology, NHL can be of B cell or T cell type. Prognosis is better in B cell type as compared to T cell lymphoma [8]. Sub-classification can be done using Immunohistochemistry. DLBCL cells generally express pan B cell markers such as CD20, CD19, CD22, CD45 and CD79a; CD10 is expressed in 30 to 60% of cases. CD10 is considered to be a marker of follicular centre B cell differentiation. Ohshima et al. reported that CD10 expression was closely associated with improved survival in patients with DLBCL. So they concluded that that CD10 expression may be useful for determining the prognosis of DLBCL [9].

Combined modality of approach that includes surgical debulking and systemic chemotherapy is the preferred treatment. Chemotherapy includes CHOP regimen (cyclophosphamide, doxorubicin, vincristin, and prednisolone). Surgery alone can be considered as an adequate treatment for patients with low grade NHL disease that has not infiltrated beyond the submucosa [10].

IV. Figures

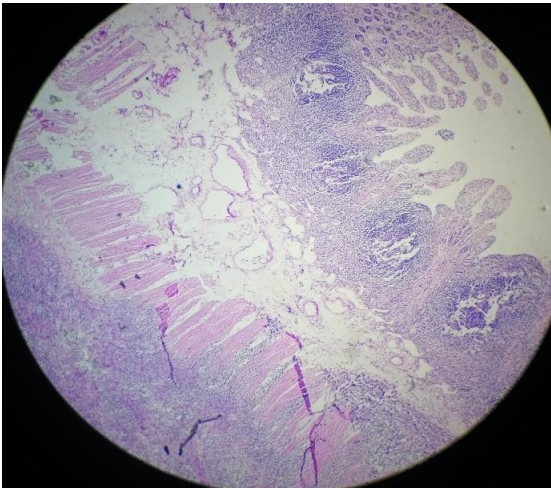


Fig 1- Microscopy showing ulcerated mucosa with infiltration of monomorphic lymphoid cells into the submucosa and muscularis propria. (H&E, 4x10)

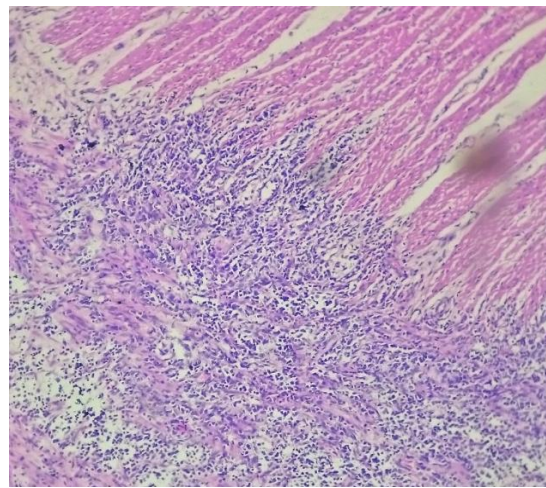


Fig 2- Microscopy showing monomorphic lymphoid cells extending beyond the muscularis propria. (H&E, 10x10)

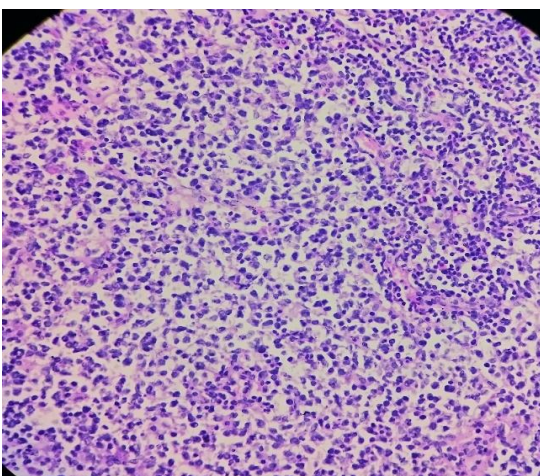


Fig 3- microscopy showing monomorphic lymphoid cells which are large, round having vesicular nuclei and prominent nucleoli. (H&E, 40x10)

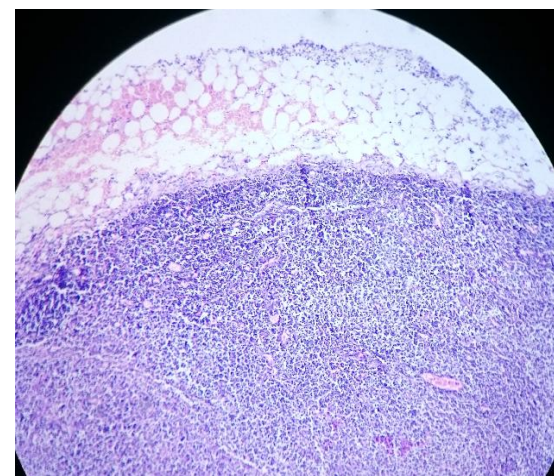


Fig 4- microscopy from lymph node showing effaced architecture showing similar morphology of lymphoid cells. (H&E, 10x10)

V. Conclusion

The diagnosis of colonic lymphoma is rarely made before surgery and usually confirmed by histopathological investigation after surgery. DLBCL occurs as extranodal involvement in 40% cases and is curable with modern medical treatment. Chemotherapy represents a cornerstone in the treatment of these patients and offers an excellent chance for long term disease free survival. Thus lymphoma should be considered as a differential diagnosis in patients presenting with an abdominal mass.

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