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Case Report

A Case Report of Abdominal Mass: Diffuse Large B Cell Lymphoma

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Abstract

Diffuse large B-cell lymphoma (DLBCL) is the most common subtype of non-Hodgkin lymphoma (NHL), constituting up to 40% of all cases globall. This subtype of cancer is heterogeneous and aggressive, yet scientific advances in the last quarter century have rendered it curable with chemotherapy or with combined chemotherapy and immunotherapy. The objective of this article is to aware professionals about the disease towards early diagnosis in preventing consequence. The present study reported the case of a 60 years old man who was diagnosed with an advanced Diffuse Large B cell lymphoma.

Key words: Diffuse large B cell lymphoma

Introduction

It constitutes 31% of all NHL. Although, in the past, DLBCL was considered one disease, in the 2008 WHO classification, DLBCL is recognized to encompass many entities. There is a slight male predominance and the median age is 64 years. There is a familial component in some cases, with about a 3.5 fold increased risk in relatives of proband with DLBCL., Patients with congenital or acquired immunodeficiency, Patients on immunosuppression and patients with autoimmune disorder have a higher risk of developing DLBCL, often EBV related[1-3]. This study examined a 60 year-old man without any important risk factors identified.

Case History

Md. Mujibor Rahman, 60 years old businessman, normotensive, non-diabetic, smoker, non-alcoholic hailing from Bokshichandpur, Modhukhali attended at oncology outpatient department with the complaints of pain in the upper abdomen for 15days & gradual distension of the abdomen for 1 month, Abdominal swelling in the left upper abdomen for about 2 month, loss of appetite, weight loss & occasional vomiting for the last 6 month. According to statement of the patient he was reasonably well about 2 month back. Then he noticed a left upper abdominal swelling along with mild pain around the swelling. The pain was constant in nature & gradually increasing for last 15 days, it is non radiating & it doesn't have any aggravating or relieving factors. And for this reason he took Homeopathic treatment. According to statement of the patient he was reasonably well about 2 month back. Then he noticed a left upper abdominal swelling along with mild pain around the swelling. The pain was constant in nature & gradually increasing for last 15 days, it is non radiating & it doesn't have any aggravating or relieving factors. And for this reason he took Homeopathic treatment. He had H/O to take biopsy from para aortic lymph node.

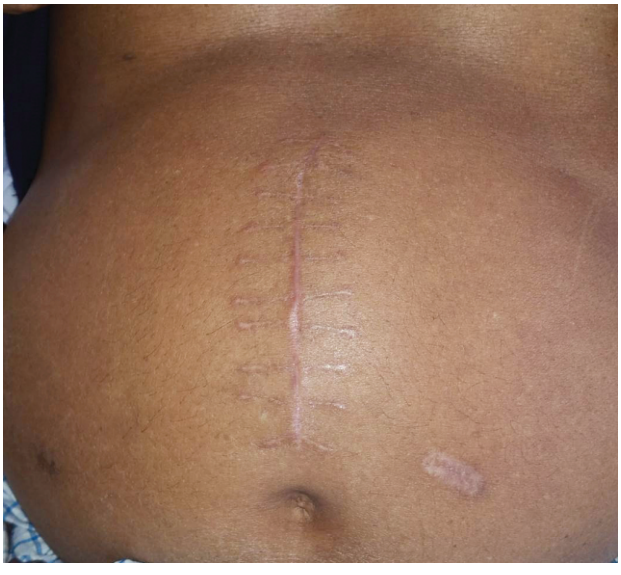

Figure 1: Scar mark shows the midline of abdomen

Two weeks back & the sample were sent for histological examination. The report suggests metastatic adenocarcinoma. He had no history of familial cancer, solid organ tumors or any other systemic illness. On physical examination, there was a tender mass in the left para aortic region measuring about 10x6 cm in size. Local temperature was not raised. The mass was hard in consistency & fixed with the underlying structure. A scar mark was present in the midline.

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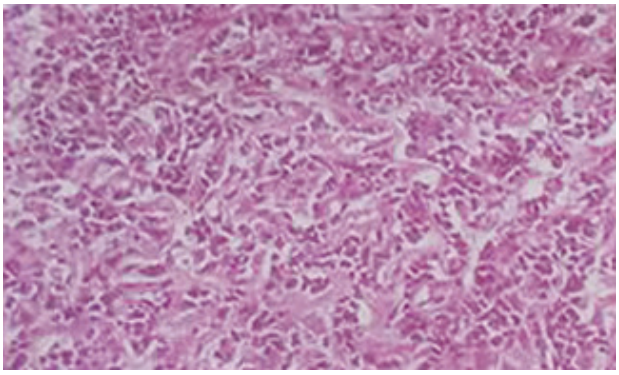

Figure 2a: H&E; Metastatic adenocarcinoma, poorly differentiated

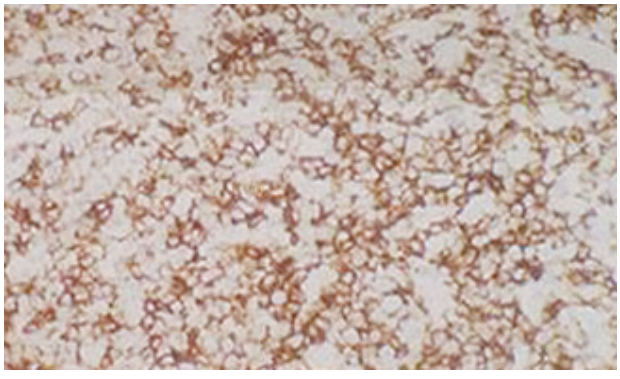

Figure 2b: LCA; Positive

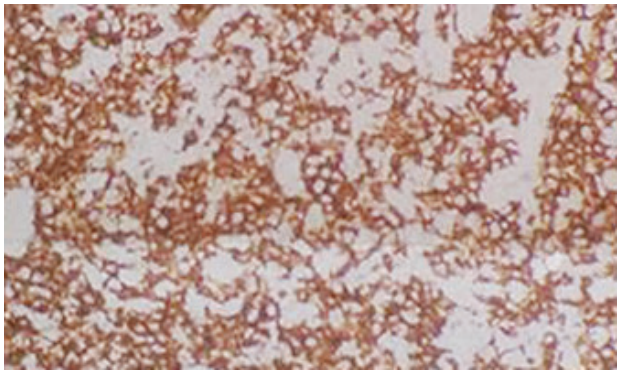

Figure 2c: CD20; Positive

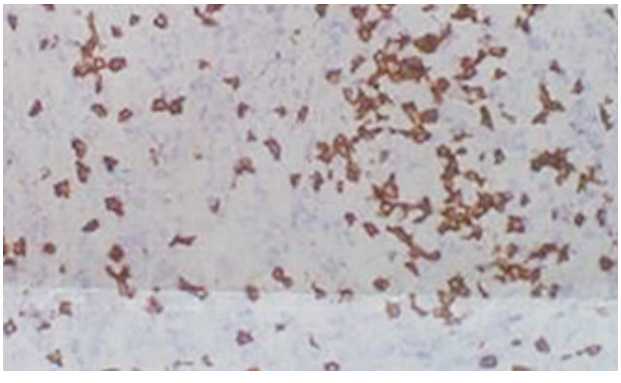

Figure 2d: CD 3; Negative

Figure 2 Immuno Histochemistry shows a) H&E; Metastatic adenocarcinoma, poorly differentiated b) LCA; Positive c) CD20; Positive d) CD 3; Negative.

On general examination, his B/P was 110/70 mm Hg, pulse was 76 beats/min. There was no palpable adenopathy. Systemic examination revealed no abnormalities. To find out the primary site, we advised some relevant investigations:

USG of whole abdomen: mild collection is noted in peritoneal cavity. Large ill defined complex mass lesion (measuring approx length 20cm & AP diameter 5 to 6 cm) is extending from epigastric region to umbilical level.

Chest X-ray P/A view, Upper GIT endoscopy, Tumor marker- CEA,CA 19.9, All reports were normal. So DLBCL is the most common subtype of NHL. Patients have a median of age 64 years, although younger in African Americans versus Caucasians. Patients present with rapidly enlarging masses, either nodal enlargement or extranodal disease. DLBCL presents as stage I or IE disease approximately 20% of the time. The disease is confined to one side of the diaphragm (stage I or II) in approximately 30% to 40% of patients. Stage IV disease is seen in approximately 40% of the patients. B symptoms (refer to systemic symptoms of fever, night sweats, and weight loss) occur in 30% of patients and serum LDH is elevated in over half the patients. For further investigations, we send the slide review & advised immuno histochemistry. This report revealed Diffuse Large B cell lymphoma. Finally patient was diagnosed as diffuse large B cell lymphoma. Systemic Combination chemotherapy Rituximab with CHOP regimen (cyclophosphamide, adriyamycin, Oncovin, prednisolone) was advised.

Discussion

DLBCL is the most common sub type of NHL. Patients have a median of age 64 years, although younger in African Americans versus Caucasians. Patients present with rapidly enlarging masses, either nodal enlargement or extranodal disease. DLBCL presents as stage I or IE disease approximately 20% of the time. The disease is confined to one side of the diaphragm (stage I or II) in approximately 30% to 40% of patients. Stage IV disease is seen in approximately 40% of the patients. B symtoms occurs in 30% of patients and serum LDH is elevated in over half the patients. Extranodal sites are common, occuring in 40% of cases including the GI tract, the testis, the bone, the thyroid, the skin, the CNS and the bone marrow. Bone marrow involvement initially is found in only 10% to 20% of patients and has a strong correlation with the risk of spread to the CNS[4]. The diagnosis of DLBCL should be carried out in a reference haematopathology laboratory with expertise in morphological interpretation and the facilities to carry out the full range of phenotypic and molecular investigations. A surgical excision biopsy remains the optimal method of diagnosis. This allows assessment of nodal architecture and provides adequate material for phenotypic and molecular studies. Ideally, the biopsy

should be sent unfixed to the laboratory to allow flow cytometric studies to be carried out and high-quality DNA and RNA to be extracted. Needle-core and endoscopic biopsies should be reserved for patients for whom a surgical approach is impractical or would entail excessive risk. A fine-needle aspirate should not be used as the sole basis for a diagnosis of DLBCL. A morphological diagnosis of DLBCL should be confirmed in all cases by immunophenotypic investigations, either immunohistochemistry (IHC) or flow cytometry or a combination of both techniques. A suggested immunohistochemical panel would include CD20, CD79a, BCL6, CD10, MYC, BCL2, Ki67, IRF4, CyclinD1, CD5and CD23.Panels used must be designed to confirm B-cell lineage, and must be comprehensive enough to high light possible variant forms such as immunoblastic lymphoma, primary mediastinal B cell lymphoma (PMBCL), T-cell/histiocyte rich large B-cell lymphoma, primary cutaneous DLBCL leg-type or EBV-positive DLBCL of the elderly[5]. Where the level of confidence in the diagnosis is reduced, for example, because only a small biopsy specimen is available or where the putatively neoplastic population has a normal phenotype by IHC, demonstration of B-cell monoclonality by a polymerase chain reaction-based method should be considered[6]. Other investigations may be done according to sign symptoms of metastatic organ involved (commonly bone, lung, lymph node, liver and brain).The staging is established according to the Ann Arbor classification system. For prognostic purposes, the International Prognostic Index (IPI) and age-adjusted IPI should be calculated[7]. Other factors that may affect prognosis and treatment strategies, including the maximum bulk of the disease should be assessed[8]. Less than 20% of patients with DLBCL have localized disease. The recommended treatment for localized disease outside of clinical trails is abbreviated, combination chemoimmunotherapy plus involved field radiotherapy or combination chemoimmunotherapy alone[4]. The current recommendation for the treatment of advanced stage DLBCL is combination chemotherapy with CHOP-R for patients both under age 60 years as well as over age 60 years[9].

Conclusion

DLBCL is the most frequent NHL and is not a unique disease. Efforts to increase awareness among patients and physicians will lead to earlier presentation and therefore diagnosis before spreading to other organs. Like the majority of cancers, diffuse large B cell lymphoma can be cured or controlled, diagnosed and treated properly at its early stages.

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