CASE REPORT

Diagnosis and Treatment of Hodgkin's Lymphoma: At Times a Challenge

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ABSTRACT

Hodgkin's lymphoma has been traditionally defined as a hematopoietic neoplasm composed of diagnostic Reed-Sternberg cells. More than 70% of the cases involve cervical or supraclavicular lymph nodes. Isolated sub-diaphragmatic lymphadenopathy or organ involvement is rare. We present the case of Hodgkin's lymphoma in a 51 years old female, who presented with obstructive jaundice and lymphadenopathy, empirically treated previously as a case of tuberculosis. Chemotherapy with modified ABVD protocol was given with dose modification according to LFT's. Her liver functions returned to normal levels after the first cycle. The main purpose of reporting the case is to stress definitive diagnosis of the disease before initiating treatment and the modified chemotherapy regimen used in this infrequent presentation of the disease.

Key Words: *Hodgkin's lymphoma. Modified chemotherapy. Liver dysfunction. Obstructive jaundice.*

INTRODUCTION

patients being examined for various reasons, or it may be a primary or secondary manifestation of numerous disorders. More than two-thirds of patients with lymphadenopathy have benign causes and < 1% have a malignancy (lymphoma or metastatic adenocarcinoma). Of the patients with benign lymphadenopathy, most of

causative agent found), and the remainder had a

mononucleosis, toxoplasmosis, or tuberculosis.

Hodgkin's lymphoma has been traditionally defined as a hematopoietic neoplasm composed of diagnostic Reed-Sternberg cells within a reactive inflammatory cell background. A classic Reed-Sternberg cell is large, measuring 30 – 60 µm, containing a bilobed, vesicular nucleus, with each lobe containing a prominent, round, eosinophilic nucleolus surrounded by a clear zone or halo; it also has abundant cytoplasm.[1]

The World Health Organization (WHO) classification of lymphoid neoplasms published in 2001 divides Hodgkin's lymphoma into nodular lymphocyte predominant and classical Hodgkin's lymphoma which includes nodular sclerosis, lymphocyte rich, mixed cellularity and lymphocyte depleted Hodgkin's lymphoma.[2] The morbid anatomy of Hodgkin's lymphoma was first presented by Thomas Hodgkin in 1832 and named Hodgkin's disease by Wilks in 1865.[3]

Cervical or supraclavicular lymphadenopathy occurs in > 70% of cases. Axillary, inguinal and abdominal lymph nodes are less frequently involved.[3]

We present a case of Hodgkin's lymphoma in a patient presented as obstructive jaundice with lymphadenopathy and treated successfully with modified chemotherapy regimen.

CASE REPORT

A 51 years old postmenopausal woman had a 1 year history of dyspnea, cough, fever and vague abdominal pain. Her chest X-ray at that time showed mediastinal lymphadenopathy and on the basis of clinical findings and chest X-ray report, she was started on anti-tuberculous therapy (ATT). She received full course of ATT but no significant improvement occurred. She was then again put on ATT after the completion of treatment and this time streptomycin was also added owing to its efficacy as second line anti-tuberculous therapy. This time the patient developed deep jaundice. It was attributed to the use of ATT, which was stopped immediately.

Meanwhile the patient developed increasing abdominal pain and progressively increasing swellings in the neck region. The patient was reviewed, physical examination showed bilateral cervical lymphadenopathy and hepatomegaly. Excisional biopsy of her left cervical lymph node was then performed which was reported as classical Hodgkin's lymphoma.

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She was referred to us for further management. Patient was deeply jaundiced. She had a performance status of Eastern Cooperative Oncology Group (ECOG)-1 with no associated comorbidity. She was non-smoker and never used oral contraceptive pills. There was no family history of any kind of cancer.

Her baseline workup at INOR showed anaemia with deranged LFT's (bilirubin = 4.0 mg/dl, ALT = 82 IU/L, alkaline phosphatase = 2336 U/L).

Ultrasound showed abdominal lymphadenopathy at porta-hepatic, peri-pancreatic and bilateral inguinal regions, causing obstructive jaundice and moderate ascites.

She got admitted in the ward where her symptomatic treatment was started. Gastroenterology Department was consulted regarding her liver dysfunction who advised against any intervention.

She was then planned for chemotherapy for Hodgkin's lymphoma (ABVD regimen qx28 days). Due to her deranged LFT's, 25% of the calculated dose of Doxorubicin, 50% of calculated dose of Vinblastine and full dose of Bleomycin was administered. Dacarbazine was omitted at day 1 of the first cycle of chemotherapy. She had a body surface area of 1.36 m^2. Doxorubicin was given in the dose of 8.5 mg, Bleomycin 13 mg and Vinblastine 5 mg was given. Her LFT's, alkaline phosphatase and CBC were daily monitored and till day 15 of her first cycle reached, her LFT's were nearly within normal limits. She was given full dose of ABVD regimen on d15 where Dacarbazine was also added. She tolerated her first cycle of chemotherapy very well, symptomatically much improved and her LFT's returned to normal. She is planned for 6 cycles of ABVD.

DISCUSSION

Hodgkin's lymphoma usually involves cervical lymph nodes in > 70% of cases. Sub-diaphragmatic presentation of Hodgkin's disease is unusual and more common in older males. Hodgkin's lymphoma involving abdominal lymph nodes, causing external compression of extrahepatic biliary channels and resultant jaundice is not a very frequent presentation. The mainstay of treatment in case of stage IV Hodgkin's lymphoma is chemotherapy and involved field radiotherapy, if required.

Most of the chemotherapeutic drugs used in the treatment of Hodgkin's lymphoma are hepatotoxic, thus the treatment of the disease in the presence of deranged liver functions is a challenge. Appropriate dose reductions have to be made when starting the recommended ABVD regimen in Hodgkin's lymphoma.

This patient was developing obstructive jaundice and any kind of medical or surgical intervention was not advisable. The decision would have to be taken at the earliest as patient's health was deteriorating. After thorough study of the case, it was decided to start modified chemotherapy with ABVD regimen but with specific dose reduction. According to the recommendations, 50% dose reduction was made in case of Vinblastine,[5] while 25% of the calculated dose of Doxorubicin was administered.[5,6] Bleomycin was given in full dose[6] and Dacarbazine was intentionally omitted because of its activation and metabolism in liver and reports of hepatic vascular toxicity associated with this agent.[7] After day one of her first cycle, her LFT's, serum alkaline phosphatase along with CBC were monitored on daily basis. Her LFT's started decreasing after one week and almost came to normal level after 2 weeks when she was given d15 of her first cycle using full doses and adding Dacarbazine as well.

The purpose of this case report is to emphasize the importance of correct diagnosis in unusual presentations of the disease, and establish the efficacy of practical dose reduction in case of compromised liver functions. This patient had this disease for the last one year but due to her delayed diagnosis, her disease progressed to such an extent that commencement of her definitive treatment became difficult.

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