

# Case Report

## Non hodgkin's lymphoma misdiagnosed as tuberculosis: A case report

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### ABSTRACT

Non-Hodgkin's Lymphoma is a heterogeneous group of malignancies characterized by an abnormal clonal proliferation of T-cells, B-cells or both. Sometimes, tuberculosis and lymphoma presentation can share common symptoms and features. A 37-year-old male patient was admitted in the hospital with complains of shortness of breath associated with cough, loss of appetite, generalized weakness and weight loss since two months. There were no palpable peripheral lymph nodes present anywhere in the body. The patient had no personal or family history of tuberculosis. The chest X-ray showed bilateral mild pleural effusion with confluent radio opacities in both lung fields. Pleural fluid biochemistry showed increased Adenosine deaminase level with increased protein and low sugar. Antitubercular drugs were started after initial diagnosis of tuberculosis. After non improvement in symptoms fine needle aspiration cytology (FNAC) was done from spleen which showed finding suggestive of non- hodgkins lymphoma.

**Keywords:** Antitubercular drugs, Non-Hodgkin's lymphoma, Tuberculosis.

**N**on Hodgkin's lymphoma (NHL) is a heterogeneous group of malignancies characterized by an abnormal clonal proliferation of T-cells, B-cells or both. NHL is ranked as the sixth most prevalent cancer in 2016.[1] The majority of the adult NHLs are of B-cell origin [2]. Both environmental and genetic factor has been implicated in its increased incidence in last decade. It has been implicated that chronic antigenic stimulation, especially due to a virus such as the human immunodeficiency virus, Epstein-Barr virus and hepatitis C virus (HCV), plays an important role in the pathogenesis of NHL [3].

Recognized since the 1950s as a distinct group of diseases, NHLs range from indolent malignancies (low-grade histology) to rapidly growing and highly aggressive tumors (high-grade histology). In general, low-grade or follicular NHL is assumed to have an indolent course when compared with intermediate- and high-grade NHL [4]. Sometimes tuberculosis and lymphoma presentation can share common symptoms and features. Several reports have described the coexistence of tuberculosis and non-Hodgkin lymphoma [5]. In the present case report, we are reporting a case of lymphoma mimicking as tuberculosis.

### CASE REPORT

A 37-year-old male patient admitted in hospital with complains of shortness of breath associated with cough, loss of appetite, generalized weakness and weight loss for two months. The patient was non-smoker, non alcoholic with no significant medical and

surgical history including his family as well. The patient had no personal or family history of tuberculosis. During examination, the patient was febrile to touch with 99.8° F, pulse rate was 94/min, and respiratory rate was 15/min with Blood pressure of 110/70 mm of Hg. There were no palpable peripheral lymph nodes present anywhere in the body.

Chest X-ray showed bilateral mild pleural effusion with confluent radio opacities in both lung fields. Pleural fluid was aspirated and sent for cytology and biochemistry. Pleural fluid cytology showed benign mesothelial cells with increased lymphocytes. Biochemistry showed increased Adenosine deaminase (ADA) level (38) with increased protein and low sugar. An initial provisional diagnosis of pulmonary tuberculosis was made and anti-tubercular drug was started. Patient was discharged in two days with weekly follow-up advice.

On the 6<sup>th</sup> day post discharge, the patient was again hospitalized with generalized weakness and low grade fever. Further computed tomography (CT) chest with abdomen was done which showed multiple lymph nodes in chest and abdomen including right paratracheal and subcarinal lymph nodes largest being 27\*18 mm. Multiple enlarged peripancreatic lymph nodes with para aortic and paracaval were present in abdomen with micronodules in liver. Also, spleen showed multiple peripherally enhancing hypodense lesions measuring 10-15 mm in size (Fig 1,2). Ultrasound (USG ) guided fine needle aspiration cytology (FNAC ) from splenic lesion was done which showed variable sized collections of atypical lymphoid

cells and plasmacytoid cells. Immunohistochemistry showed CD 10, CD 19, and CD 20. The final diagnosis of Non hodgkins lymphoma was made and patient was referred to oncology centre for further management.

## DISCUSSION

Delay in diagnosis and treatment makes the estimated mortality rate high in India than in North America and Western Europe due to NHL. Incorrect diagnosis and inappropriate or suboptimal treatment may be one of the contributory possible reasons for the poorer outcome [6].

This case report is a reminder to clinicians that sometimes eyes see what the mind knows differs in medicine. In some cases, a disease may present as another one. Sometimes diagnosis is a challenge in TB and lymphoma due to many common clinical and radiological features. Several cases have been reported showing initial diagnosis of TB which later diagnosed as Hodgkin's and Non Hodgkin's lymphoma [7].

In our patient, increased ADA level further added to confusion though cases have been reported of lymphoma with increased ADA levels [8,9]. As the patient didn't respond to ATT early suspicion leads to initial FNAC which established the diagnosis. Although in several case reports coexistence of both TB and Lymphoma have been also reported [10].

## CONCLUSION

NHL should be kept in mind as a differential diagnosis in patients not responding to ATT or in which diagnosis is dubious lymphoma should be sought of. Early diagnosis and treatment can increase survival in these patients.

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