Case Report
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Cervical Lymphadenitis Mimicking Lymphoma: A Case of Tuberculosis

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Abstract:
Introduction: Tuberculosis does not lose its importance in the world and it can be is a transmitted infectious disease that we encounter.
Case Report: A 77-year-old male patient is presenting with cervical lymphadenopathy. Lymphoma is followed with a pre-diagnosis. The patient is diagnosed as Tuberculosis Lymphadenitis as a result of microbiological tests.
Conclusions: A 77-year-old male patient is presenting with cervical lymphadenopathy. Lymphoma is followed with a pre-diagnosis. The patient is diagnosed as Tuberculosis Lymphadenitis as a result of microbiological tests.

Key words: *Tuberculosis, lymphoma, lymphadenitis*

Introduction

Tuberculosis (TB) is an infectious disease that has been known since the time of Hippocrates and has been seen in about 10 million people every year and has remained important from past to present. It is one of the top 10 deaths caused by a single infectious agent and is one of the top 10 causes of deaths worldwide, and is the most common cause of single-factor infection-related deaths (1). In 2017, 6.4 million new TB cases were officially registered in the world and reported to the World Health Organization (WHO) (1). In the same report, 65% of 12 417 new cases reported from our country were recorded as pulmonary tuberculosis and 35% as extrapulmonary tuberculosis (1). The share of extrapulmonary tuberculosis in all tuberculosis cases varies from country to country, but it usually varies between 20-40%, and in our country it is seen in approximately 35% of all patients (2).

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In extrapulmonary tuberculosis, involvement of all organs and tissues, especially lymph nodes, pleura, kidney, bone and joints, meninges, brain, peritoneal involvement can be seen. In clinical examples of extrapulmonary tuberculosis patients; It is very difficult to detect low amounts of tuberculosis bacilli with slow reproductive rate by classical methods such as acid resistant staining and culture. Extrapulmonary tuberculosis can create significant problems in unusual areas of the body and with different clinical manifestations, mostly invasive methods are used in its diagnosis. For these reasons, it is more difficult to diagnose extrapulmonary tuberculosis than the diagnosis of pulmonary tuberculosis. Tuberculosis lymphadenitis is the most common form in the extrapulmonary tuberculosis group and accounts for about 35% of cases. Along with the increase in extrapulmonary tuberculosis rates, there is an increase in tuberculosis lymphadenitis cases. While tuberculosis lymphadenitis occurs in the mediastinum and hilus in the thorax, it can occur in the axilla, inguinal region, in the abdomen (mesenteric) and other regions, most often in the neck outside the thorax. In the differential diagnosis, leukemia, tularemia, bacterial infections, non-tuberculosis mycobacterium infections, HIV and other virus infections, rheumatological diseases etc. must be kept in mind. Although its factor, diagnosis and treatment is known, the fact that it is still an important problem indicates that this issue should be approached with care and attention all over the world. Our case is a condition that needs attention because it is a patient who was followed up with a pre-diagnosis of lymphoma but was later diagnosed with tuberculosis lymphadenitis.

Case Report

A 77-year-old male patient states that there is a small, swelling on the left side of the neck that started about fourteen days ago. The patient who said that swelling aches three days ago; he applies to the emergency clinic, stating that he has a tenderness in her neck and throat along with anorexia, nausea, fever and chills. The patient, whose first intervention is performed and the fever is reduced, is directed to the Otorhinolaryngology policlinic. It is stated in the CV of the patient, who was evaluated by the Otorhinolaryngology, that he has been suffering from Hypertension for five years and regularly takes his medication. In the physical examination, it is determined that there is a partial mobile, fluctuating swelling and partial discharge in the size of 2 * 3 cm in the lower left side of the neck. Ampicillin / Sulbactam treatment is started for the patient who is hospitalized in the Otorhinolaryngology service. Neck tru-cut biopsy is performed on the patient who is hospitalized with a diagnosis of lymphoma. As a result of biopsy, granulomatous lymphadenitis containing areas of suppurative necrosis; reported as left supraclavicular mass. Routine biochemistry, hemogram and hepatitis markers of the patient are detected normally. All abdominal ultrasonography (USG), neck ultrasonography, and brain magnetic resonance (MR) are performed for further examination. While other imaging is normal, growth is observed in the left lymph nodes in the neck USG. The material is sent to the microbiology laboratory simultaneously with the pathology from the second cut tru cut biopsy material. Preparation is prepared from the incoming materials and abscess culture and Tuberculosis culture cultivation is done. Gram staining and Erlich Ziehl-Neelsen staining (acid-resistant bacillus-ARB) are made from the prepared preparations. Mycobacterium is also studied molecularly using the Real Time Polymerase Chain Method (PCR). ARB staining is evaluated positively and the physician is informed

according to the panic notification criteria. Mycobacterium PCR result is also seen as positive. DNA extraction was performed with the DNeasy Blood & Tissue kit (QIAGEN, Germany), while the polymerase chain reaction procedures were performed using fluorescent resonance transfer hybridization probes (QIAGEN Molecular Diagnostics, Germany) that bind to the 159-base specific region of mycobacterium. The patient is diagnosed as Tuberculosis Lymphadenitis and rif, ethambutol, pyrazinamide and isoniazid are started as anti-tuberculosis treatment. On the twenty-second day of tuberculosis culture, growth is observed in the Löwenstein-Jensen (LB) broth. The patient, whose clinic has improved, is discharged on condition that he continues his treatment and on condition of coming to the controls.

Discussion

Tuberculosis increases the incidence in the world and in our country as a serious public health problem. The increase in the elderly population; diabetes; immunosuppressive diseases (such as AIDS); migration; socio-economic disabilities, especially in some regions; form changes such as being seen in different clinics and in every part of the body; the possibility of mixing with many diseases, especially malignant diseases, can be counted as important risk factors of tuberculosis. The most important problem in our case is the confusing of Tuberculosis Lymphadenitis with Lymphoma. The diagnosis of lymphoma has been a problem because it has similar features with tuberculosis histopathologically. Histopathologically, the presence of necrosis and granuloma areas led to the follow-up of the patient with a preliminary diagnosis of Lymphoma, putting aside the most probable diseases in our country, such as tuberculosis, which produces necrotizing granuloma. Cervical/supraclavicular ones are the most common among tuberculous lymphadenitis. Cervical Tuberculosis Lymphadenitis can be the cause of isolated mass in the neck, as well as 10% abscess or 5% fistulized neck mass (3). The most common lymph node involvement was reported as cervical region (47.4%) in a study conducted by Bozdemir et al. With 19 cases diagnosed with tuberculosis lymphadenitis between 2005 and 2010 (4). In our case, involvement was observed in the cervical lymph nodes, which were reported as the most extraneous involvement site in the literature. Tuberculosis is an infectious disease. The diagnosis of tuberculosis is bacteriological. The gold standard for the diagnosis of tuberculosis is the isolation of the agent. Solid broth (L-J), which are frequently used for this purpose, require an average of 4-8 weeks for isolation. Tuberculosis bacillus is difficult to be demonstrated and produced in culture in the smears of samples taken from the lymph node of patients with tuberculosis lymphadenitis. Therefore, histopathology and mycobacteriological definitions should be made simultaneously in the diagnosis of tuberculosis lymphadenitis. In order to shorten the diagnosis period, low sensitivity (20-85%), high specificity Asido resistance bacilli (ARB) and mycobacterium PCR must be performed (6,7). In our case, making the microbiological request late caused the diagnosis to prolong. As a result; The first step in diagnosis of tuberculosis lymphadenitis is suspected of TBLAP. TBLAP should be considered first in differential diagnosis in patients with poor socioeconomic status, elderly, immunocompromised and especially those who define discharge from the neck mass. As with all extrapulmonary tuberculosis cases, cervical LAPs should be performed before pathological and microbiological examination before antimicrobial

treatment. With the wrong diagnosis made without pathological and microbiological examination, radical treatment is delayed in malignant diseases, patients with TBLAP are put into cancer psychology, Tuberculosis patients with atypical clinic are delayed, anti-tuberculosis treatments are delayed, and money and time are lost. Even if the clinician did not request mycobacteriological examination, in case of suspected tuberculosis in pathological examination, the remaining clinical sample should be sent to the mycobacteriology laboratory, and pathology microbiology cooperation should be provided.

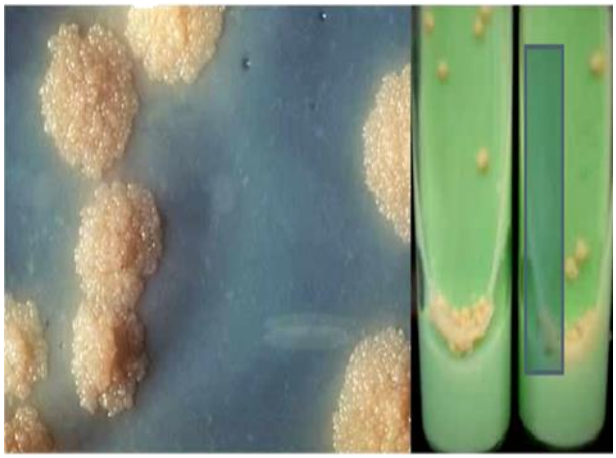

Figure 1. Appearance on L. Jensen broth

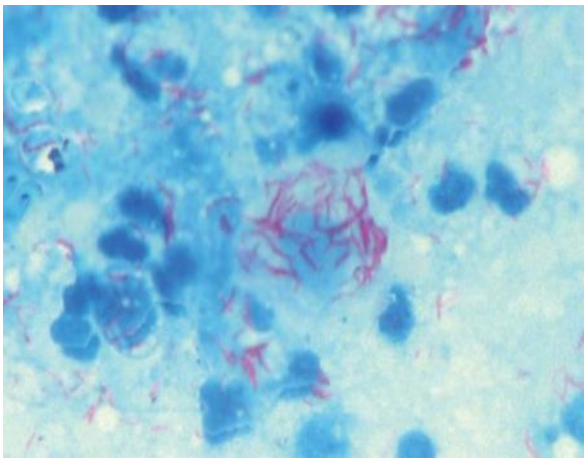

Figure 2. ARB image of *M.tuberculosis.*

Results

Consequently, salmonella osteomyelitis, which is rarely seen in children without underlying disease, should be kept in mind. MRI is superior in defining osteomyelitis and appropriate cultures should be taken to determine the exact effect.

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