

Giant Cervical Tuberculous Lymphadenitis: Case Report

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Abstract

Objective: Tuberculosis (TB) is still a significant public health problem in developing and developed countries. Tuberculous lymphadenitis is the most common form of TB among extrapulmonary TB patients. Cervical region lesions can be confused with other lymphadenopathy diseases, making diagnosis difficult.

Case report: A 26-year-old male patient with no known disease presented to our Emergency Service with complaints of swelling on his neck that had been growing steadily for several weeks. Tuberculosis bacillus was detected when a lymph node biopsy was taken and examined from the patient, whose lymphadenitis was thought to be in the foreground.

Conclusion: This article aims to emphasize that tuberculosis infection, which is a specific infectious agent, should be considered in the differential diagnosis of the case presenting with cervical swelling. The diagnosis can be made quickly with a simple and inexpensive imaging method such as ultrasound.

Introduction

Tuberculosis (TB) is an important public health issue in developing countries, but it is also important in developed societies because of the frequency of immunosuppressive diseases. Mycobacterium tuberculosis is mainly spread through the respiratory tract and the risk of transmission is therefore very high. Although it is most commonly seen in the lungs, it can also be localized in the lymph nodes in the head and neck region, mouth, tonsil, tongue, nose, epiglottis, larynx and pharynx extrapulmonary. TB lymphadenitis is the most common extrapulmonary manifestation of TB, representing 30-50% of cases (1). The posterior cervical triangle and supraclavicular area of the neck are the most common areas of TB lymphadenitis (2). Cervical lymph adenitis is mainly unilateral (3). In cases of cervical lymphadenitis, a detailed examination is necessary, as there are often no signs of pulmonary TB. However, it is sometimes rather difficult to diagnose.

As TB lymphadenitis develops, the lymph nodes initially swell, stick together and necrosis occurs, then an abscess may develop, and fistulization may occur (4). The PPD (Purified Protein Derivative) test is not reliable in adults with TB lymphadenitis. The definitive diagnosis is established by detecting TB bacillus in the lymph node material and by showing granulomatous inflammation with

necrosis in the pathological report. Apart from conventional techniques (cytology, staining, and cultivation), PCR tests can be applied for early and rapid diagnosis. Classic anti-tuberculosis drugs are used in the treatment. Surgical treatment can be tried in the presence of lymph nodes that do not shrink despite treatment, are draining, and fistulized in the respiratory tract.

According to the literature, since the most common cause of cervical lymphadenopathy (LAP) is oncology, the clinician plans the examinations according to this situation (5).

In this article, a case of cervical lymphadenopathy will be examined, in which all possibilities are rapidly addressed.

Case

A 26-year-old male patient was admitted to our Emergency Department with complaints of swelling on the right side of the neck that had been increasing and hardening for a few weeks, fever that increased intermittently, weakness, and loss of appetite. It was learned that the patient worked in a crowded environment. The patient doesn't drink alcohol and doesn't smoke. No known history of chronic disease. When examined, there were palpable and interrelated swellings, the largest of which was about 4-5 cm along the right cervical lymphatic chain on the neck (Figure 1). There was no redness or discharge from the swelling area. Temperature: 37.7, blood pressure and saturation level were within normal limits. Hemograms, biochemistry, rheumatic

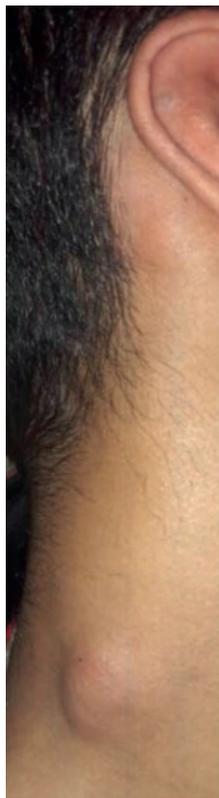


Figure 1: Massive swelling of the right neck

and hepatic markers, C-RP (C-reactive protein), syphilis, Brucella, and cancer screening tests were within normal limits. An otolaryngologist was consulted, and chest X-ray and neck ultrasound (USG) examinations were performed. No pathology was observed in the X-ray taken (Figure 1: Massive swelling of the right neck)

Lymph nodes of pathological size and characteristics were not detected in the axillary and inguinal regions. Conglomerated lymph nodes with cystic necrotic areas compatible with TB lymphadenitis were detected in the cervical ultrasound (Figure 2). The patient was referred to the university hospital for further examination and therapy. He was scheduled for surgery and at that time, it was learned that a discharge started from the swelling in his neck. In

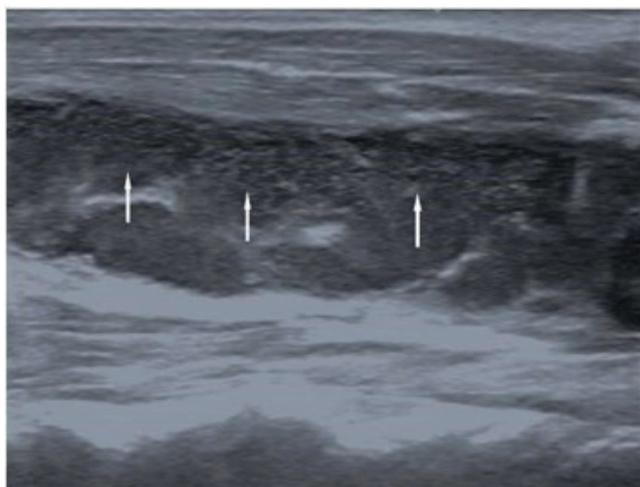


Figure 2: Gray scale ultrasound images of the cervical region

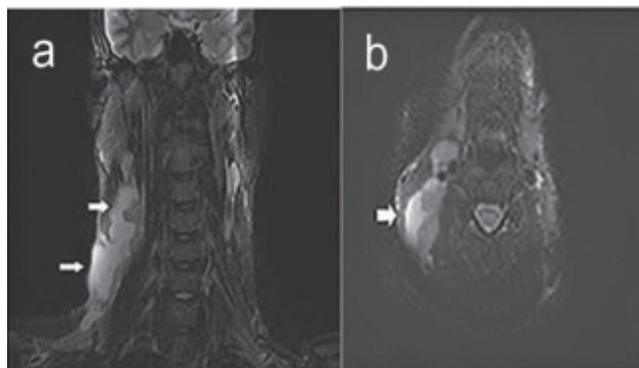


Figure 2: a-b: T2W coronal and axial MR images of the cervical region

the magnetic resonance imaging (MRI) of the neck taken to the patient before scheduled surgery; Conglomerated lymphadenopathy with lobulated contours, filling an area of 118x45x24 mm in the right cervical chain, including septa and cystic necrotic areas were detected. Abscessed LAPs showing diffusion restriction were observed (Figure 3a-b). (Figure 2: Grayscale ultrasound images of the cervical region; Conglomerated lymph nodes with a hypo-anechoic heterogeneous echo pattern and intranodal necrosis (white arrows). Figure 3 a-b: T2W coronal and axial MR images of the cervical region; Cystic necrotic mass consistent with conglomerated LAP described on ultrasound in the right posterior cervical region.)

Because the wound discharge did not decrease after the operation, the patient underwent an operation for the second time. M. Tuberculosis was detected in the surgical material by PCR test. At the time this article was written, the patient's treatment was over. The discharge from his neck stopped, and the wound was closed. Findings were normal in the control X-ray.

The case report has been written in an anonymous characteristic, thus secret and detailed data about the patient has been removed. Editors and reviewers can know and see these detailed data. These data are backed up by the editor and by reviewers.

Discussion

TB affects more elderly people in developed countries, and all age groups, particularly young people in developing countries. In our country, which is included in the group of developing countries, the incidence of TB cannot decrease at the expected level and still maintains its characteristic of being a disease of the young population (6). The patient in this study was also a member of the youth patient group.

TB lymphadenitis; is the most common form of TB in the extrapulmonary TB group. It may be confused with other diseases leading to lymphadenopathy in the involvement of the cervical region. Clinical outcomes are non-specific and can mimic other illnesses and complicate diagnosis. The coexistence rate for extrapulmonary and pulmonary TB

is 60% (7). Coexisting with the cervical region is rare. In this case, the extrapulmonary finding was not accompanied by pulmonary TB. As such, it has compatibility with the literature.

There is limited data available in the literature on lymphatic node size in patients with cervical TB lymphadenitis. Malignant/metastatic lymph nodes were reported to be larger than TB lymphadenitis (2). Gautam et al. found that 52.85% of cervical TB lymphadenitis was measured as 3-6 cm (8). The size of the cervical lymph node of the patient in this study is larger than those in other articles on this topic. Therefore, these data can contribute to the literature.

The presence of conglomerated lymph nodes and necrotic zones observed on the USG are important findings for the diagnosis of TB (3). In this patient, the preliminary diagnosis was made by ultrasound examination. However, a definitive diagnosis was made by PCR test performed after an excisional biopsy.

The mean time to diagnosis in patients with TB lymphadenitis was reported as 128 days. However, studies in our country have shown that this period is longer than acceptable for pulmonary and extrapulmonary TB (9). The time from the onset of our patient's complaints to the final diagnosis did not exceed 40 days. In this case, the diagnosis can be said to be quicker than in the literature. Classic anti-TB drugs are administered to treat TB lymphadenitis. 9 months of therapy have been planned for our patient; the symptoms completely disappeared during the treatment.

Conclusion

In summary; there is no specific marker to diagnose cervical TB lymphadenitis. A strong suspicion is important for diagnosis. In cases of necrotic and conglomerated lymph nodes on USG, it is important to beware of TB lymphadenitis in radiology reports. Therefore, ultrasound, which is a non-

invasive, inexpensive, and easily accessible method, should be preferred first.

In this text, we tried to emphasize that specific infectious pathologies should also be considered in the diagnosis when unilateral, gigantic lymphadenopathy is seen in the patient who came to the emergency department with neck swelling; detailed consideration and rapid action should be taken, thus detecting the source of the disease and reducing the risk of the spread of the disease.

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