

In the name of God

Shiraz E-Medical Journal
Vol. 13, No. 2, April 2012

<http://semj.sums.ac.ir/vol13/apr2012/90026.htm>

Tuberculosis Lymphadenitis: A Case Report.

Nozari, N.

Internist, Department of Internal Medicine, Pastor Hospital, Kerman University of Medical Sciences, Bam, Iran

Correspondence: Dr. N. Nozari, Pastor Hospital, Bam, Iran, Telephone: +98 (913) 3973-577, Fax: +98 (344) 2319-400, Email: nozari_neda@yahoo.com

Received for Publication: October 27, 2011, Accepted for Publication: January 5, 2012.

Abstract:

Objective: Tuberculosis is an important infectious disease which can involve respiratory system and other organs. Lymph nodes are common site for tuberculosis involvement.

Clinical Presentation and Intervention: We report a 30 year old male patient with a draining sinus on neck and lymphadenopathies in the inguinal region. He was improved by a standard medical therapy after being documented with a suggestive pattern for tuberculosis by lymph node biopsy.

Conclusion: cervical Lymph adenopathy is a presentation of tuberculosis. Extra pulmonary tuberculosis should be ruled out via Para clinic studies. Lymph-node biopsy is helpful in this era.

Keywords: tuberculosis, lymphadenitis, extra pulmonary tuberculosis, biopsy

Introduction:

Tuberculosis is one of the most important infectious diseases because it is second leading cause of death among infectious diseases. Mycobacterium tuberculosis can produce pulmonary infection (primary disease) and extra pulmonary infections

such as in lymphatic, skeletal and central nervous system, depends on the immune system response.⁽¹⁾ In one study in Turkey it was reported that prevalence of lymphadenitis among extra pulmonary tuberculosis patients between 1999-2003 was 23% ⁽²⁾ and was more common among women.^(2,3,4) Diagnosis of extra

pulmonary tuberculosis is very difficult due to restriction in diagnostic tests.^(5, 6) This case report presents a case of extra pulmonary tuberculosis in a young man with lymphadenitis.

Case Presentation:

A 30 year old prisoner referred to emergency room with a history of 3 months pus discharge from a nodule on left side of his neck. There was no past histories of fever, cough or weight loss. He just had a history of traumatic pneumothorax in left hemi thorax last year. The physical exam revealed two firm and painless lymph nodes on left inguinal region and a painless swelling nodule with a draining sinus on left side of neck. (Figure 1) .TST (Tuberculin Skin Test) was negative and erythrocyte sediments test was 10 mm at 1st hour and 20 mm at 2nd hour. Qualitative CRP (C-reactive protein) was negative. Hepatitis viral markers, HIV test and RPR (Rapid Plasma Reagin) were nega-

tive. Wright and Widal tests were also negative. Chest radiograph showed old scar of chest tube on left hemi thorax with a blunt costophrenic angle and a few calcified nodule on right hemi thorax (Figure 2).The patient was candidate for lymph-node biopsy regarding high clinical suspicion towards diagnosis of tuberculosis .Excisional biopsy of inguinal lymph nodes were done and two different expert pathologists reported chronic granulomatous lymphadenitis. The patient was referred to TB centre where treatment of tuberculosis is provided under direct supervision. The patient was treated according to WHO protocol of which the patient is treated by 4 drugs (Isoniazid, Rifampin, Pyrazinamide and Ethambutol) for 2 months followed by 2 drugs (Isoniazid and Rifampin) for 4 months .The patient became well during 14months of follow up period.



Figure 1, Redness nodule with a draining sinus on neck.



Figure 2, Chest radiography showed blunt costophrenic angle on left side due to old scar of chest tube.

Discussion:

Cervical Lymph adenopathy is a presentation of tuberculosis, however other diseases should be ruled out. It's difficult to rule out active tuberculosis in other organs.⁽⁷⁾ Culturing is very sensitive and it is the standard test for detection of tuberculosis.^(8, 9) PCR (polymerase chain reaction) is a very rapid and sensitive technique for distinguishing extra pulmonary tuberculosis and focal lesions from other diseases.⁽⁸⁾ Positive QFT-G (Quantiferon-TB Gold) and TST can help to diagnosis, then again negative tests can't rule out tuberculosis.⁽⁹⁾ In this case, we could document tuberculosis' lymphadenitis via excisional biopsy and rule out other granulomatous diseases like brucellosis via Para clinic tests. Some countries, like the Netherlands provide short term treatment (Isoniazid, Rifampicin

and Pyrazinamide for 6 months) for tuberculosis of lymph node.⁽⁷⁾ In a study in Finland, 56.9% of extra pulmonary tuberculosis had good outcome while male sex, old age, deep involvement, immunosuppression and other comorbidities may affect treatment outcome.⁽⁴⁾

A sample biopsy is suggested for documenting diagnosis of extra pulmonary tuberculosis. The histopathological findings of granulomatous structure with central caseous like necrosis and lymphocytic infiltration are suggestive of tuberculosis. However, clinicians should decide based on clinical symptoms and Para clinical evidence in order to suggest differential diagnosis.

References:

1. A.Knechel N, Tuberculosis: pathophysiology, clinical features, and diagnosis, Crit Care Nurse , 2009; 2 (29): 34-43.

2. Ozvaran M.K, Baran R, Tor M, Dilek I, Demiryontar D, Arinc S, et al, Extrapulmonary tuberculosis in non human immunodeficiency virus infected adults in an endemic region, *Annals of Thoracic medicine*, 2007; 3 (2): 118-121.
3. Gunal S, Yang Z, Agarwal M, koroglu M, Kazgan Arici Z, Durmaz R, Demographic and microbial characteristics of extrapulmonary tuberculosis cases diagnosed in Malatya, Turkey 2001-2007, *BMC public health*, 2011; 11: 154.
4. Vasankari T, Holmstrom P, Ollgren J, Liippo K, Ruutu P, Treatment outcome of extra-pulmonary tuberculosis in Finland: a cohort study, *BMC public health*, 2010, 10: 399.
5. J.Yoon H, G.Song Y, I.Park W, P.Choi J, H.chang K, M.kim J, Clinical manifestations and diagnosis of extrapulmonary tuberculosis, *Yonsei medical journal*, 2004; 3 (45): 453-461.
6. Sharma S.K, Mohan A, Extrapulmonary tuberculosis, *Indian J Med Res*, 2004; 120: 316-353.
7. Van loenhout-rooyackers J.H, Laheji R.J.F, Richter C, Verbeek A.L.M, Shortening the duration of treatment for cervical tuberculosis lymphadenitis, *Eur Respire J*, 2000; 15:192-195.
8. Q. Ortuno M.I, Colmenero J.D, Bermudez P, Bravo M.J, Morata P, Rapid differential diagnosis between extrapulmonary tuberculosis and focal complications of brucellosis using a multiplex real time PCR assay, *Plos one* (www.Plosone.org) , 2009; 2 (4): 4526.
9. Oznur AK, Dabak G, Ozer S, Saygi A, Dabak R, The evaluation of the Quantiferon-TB gold test in pulmonary and extrapulmonary tuberculosis, *Jpn. J. Infect. Dis.*, 2009; 62: 149-151.