

A Case Report on Tubercular Lymphadenitis with Seizures

¹K.V.Vidhya, ²S.Pushpa Sree, ³K.M.Jyoshna, ⁴K.Thirumala Naik, ⁵K.Manasa

^{1,2,3,5}Pharm. D Intern, ⁴Associate Professor and Clinical Preceptor
Pharmacy Practice
Krishna Teja Pharmacy College, Tirupati, Andhra Pradesh.
Corresponding Author: K.V.Vidhya

Abstract- Tubercular lymphadenitis are the form of lymphnode tuberculosis that can present with seizures. Seizures usually resolve after successful treatment of the underlying infection. However, the success of the treatment is usually based on an early diagnosis. We discuss the most important aspects of patients with CNS tuberculosis who have seizures and/or develop epilepsy, such as epidemiology, clinical features, and electrophysiological characteristics, as well as the etiological factors associated with seizure development, risk factors for acquired epilepsy, and treatment. Tubercular lymphadenitis can be specifically diagnosed with the help of Palpable mass on right neck region and Biopsy. Seizurs are commonly associated with Tubercular lymphadenitis. So, In intial stages we suggest to give ATT with Anti- epileptic drugs.

Keywords: Tuberculer lymphadenitis, Seizures, mass, lesions, CNS tuberculosis.

INTRODUCTION:

Tuberculosis (TB) is a chronic granulomatous infection caused primarily by Mycobacterium tuberculosis and, less frequently, by ingestion of Mycobacterium bovis-infected unpasteurized cow's milk or other atypical mycobacteria. Tuberculosis is a major public health issue, infecting 8 million people each year and killing 3 million due to TB complications. The prevalence of tuberculosis in developing countries is increasing, which is thought to be linked to poor hygiene conditions and an increased risk of developing acquired immunodeficiency syndrome. Tuberculosis primarily affects the pulmonary system, but it can also affect extrapulmonary locations such as the head and neck region. Extrapulmonary tuberculosis is extremely rare, affecting only 0.05-5% of TB patients. As a result, this disease is rarely used to rule out other causes of head and neck lesions.

Tuberculous lymphadenitis typically manifests as a gradually increasing, painless enlargement of a single or multiple group of lymph nodes. Symptoms typically lasts 1-2 months at the time of presentation, but can varies from 3 weeks to 8 months ,Along with this fever ,Fatigue and weightloss also occur.⁽²⁾

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A seizure is the uncontrolled, aberrant electrical activity of the brain that can produce changes in awareness, behaviour, memory, or feelings. Seizures can be partial or generalised. The most common type of seizure in adults is a partial seizure, which occurs when one section of the cerebral cortex activates first and can present as simple symptoms such as motor or sensory abnormalities. Generalised seizures are caused by diffuse cerebral activation at the onset of a seizure.⁽³⁾

CASE REPORT:

A 17 year female patient was admitted in the General Medicine Department of Sri Balaji Medical College, Hospital and Research institute, Renigunta with the chief complaints of Seizures 2-5 mins and involuntary micturition, post ictal confusion 20-30min and uprolling of eyes. She is a known case of seizures since 1 year and on regular treatment for maintaining the condition.

On General examination, the patient was semi conscious and her vitals were as follows BP- 146/80 mmHg, PR- 113bpm, SPo2-98% and Temperture - 98.6F. CNS- abnormality present, CVS-S1, S2+ ,RS-B/L AE+.

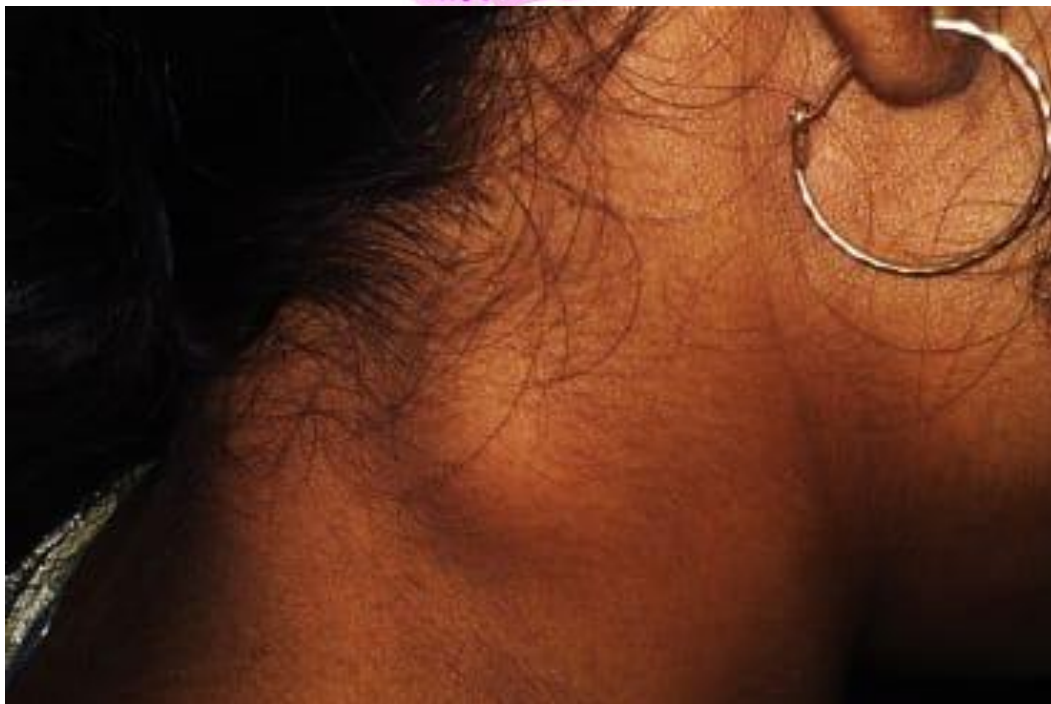
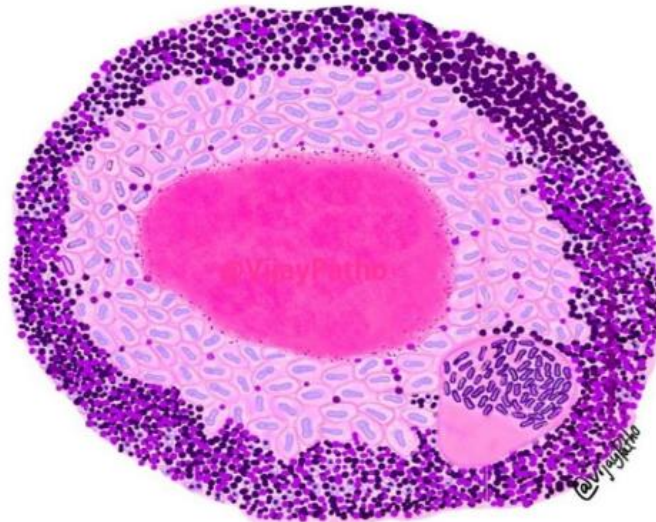
INVESTIGATIONS:

Her laboratory investigations were as follows

Serum electrolytes like sodium-133.7, potassium-3.46 .CBP,CRP,viral markers,Serum calcium was done. Patient found to have elevated levels of WBC-13.79(3.5-9.5/ul) and also ESR 40mm/hr (0-15mmhr) .So based on subjective and objective evaluation, and also after examination of ENTand Biopsy.

Patient was diagnosed with “Tubercular Lymphadenitis”. Treatment include, patient initially treated with Inj. Levipil 1g of 100 ml NS, There is significant improvement in the patient with episodic seizures.

Due to poor prognosis of the disease, patient was adviced to be in iP ward for 9 days and planned for Seizure Treatment. Mean while symptomatic treatment was also given.



DISCUSSION:

Tuberculosis is a leading cause of morbidity and mortality worldwide. In communities with lower socioeconomic status, however, the risk of infection is significantly higher. In India, nearly 2.2 million people contract tuberculosis each year, with approximately 0.87 million becoming infectious and accounting for more than 330,000 cases. Tuberculosis is regarded as the most common opportunistic infection in areas where HIV infection is widespread.

Primary tubercular infection of orofacial tissues can occur in the absence of systemic infection, but it is extremely rare and occurs primarily in younger patients. Mycobacterium tuberculosis focuses on the bronchopulmonary apparatus, with secondary infections in the head and neck region. Primary involvement is more prevalent in children and adolescents than in adults.^{3,4} Primary orofacial tuberculosis typically affects the gingiva, mucobuccal folds, and inflammatory foci surrounding extraction sites or teeth.⁵ Secondary oral tuberculosis can develop at any age, but it is

most common in middle and older adults. It develops from a healed primary focus or as a result of the infection's endogenous spread. Secondary tuberculosis is mostly persistent in nature and can cause significant damage to the tangled tissue with caseation, fibrosis, and cavities.

Extra-pulmonary tuberculosis treatment follows the same basic principles as pulmonary tuberculosis. For TB at any site, a 6- to 9-month treatment regimen containing INH and RIF is recommended.

The diagnosis of primary tuberculosis in our patient was puzzling because, prior to the development of a visible swelling of the jaw, the patient complained of toothache and was treated with antibiotics, followed by tooth extraction and sinus tract drainage with no improvement. As a result, it is the clinician's responsibility to consider TB lymphadenitis as a possible differential diagnosis in such cases and take appropriate action.

The diagnosis was confirmed by biopsy because the clinical features were non-specific and the radiographic features of the lesions were negative for pulmonary involvement. Histopathology of the lesion revealed multinucleated giant cells, particularly Langhans giant cells and histiocytes. Ultrasound examination of cervical lymph nodes revealed the size of the expanded lymph nodes. An anti-tubercular therapeutic schedule was followed for four months, and the patient responded well to treatment.

Mycobacterium tuberculosis infection of the central nervous system (CNS) is the most common cause of seizures and acquired epilepsy worldwide, and many of them are preventable, particularly in low- and middle-income countries. A seizure is a transient occurrence of signs and symptoms caused by abnormal excessive or synchronous neuronal activity in the brain, whereas epilepsy is a chronic condition with an enduring predisposition to recurrent, unprovoked epileptic seizures.

We discuss the most important aspects of patients with CNS tuberculosis who have seizures and/or develop epilepsy, such as epidemiology, clinical features, and electrophysiological characteristics, as well as the etiological factors associated with seizure development, risk factors for acquired epilepsy, and treatment.

CONCLUSION:

Tubercular lymphadenitis can be specifically diagnosed with the help of Palpable mass on right neck region and Biopsy. Seizurs are commonly associated with Tubercular lymphadenitis. So, In intial stages we suggest to give ATT with Anti- epileptic drugs .As early as possible in the case of symptomatic assessment of either Tubercular lymphadenitis or seizures, which facilitates the choice of treatment for the better patient care and enhanced health related quality of life. Since TB drugs are cost effective, SBMC Hospital referred the patient representative through the letter to the government hospital, to get medicines for cost effective treatment.

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