ActaBiomedicaScientia

e - ISSN - 2348 - 2168
Print ISSN - 2348 - 215X

Chest Medicine

www.mcmed.us/journal/abs

Research Article

RARE CLINICAL PRESENTATION OF TUBERCULOUS MENINGITIS IN AN YOUNG ADULT PATIENT

Dr.Y. Sapta Naga Kumar[1] and Dr. Varghese Zachariya[2]*

[1]Associate Professor, Pulmonary Medicine, Sri Venkateshwaraa Medical College Hospital& Research Centre, Puducherry, India.

[2]Professor, Pulmonary Medicine, Sri Venkateshwaraa Medical College Hospital& Research Centre, Puducherry, India.

ABSTRACT

Tuberculosis has a high global incidence rate, particularly in poorer countries. The World Health Organization (WHO) claims that according to 2013 figures, there were 9 million people 1.5 people newly diagnosed with tuberculosis. Approximately one million of these instances resulted in death. Tuberculosis is the second highest cause of death in the India. In the area of infectious diseases, death is one of the most common causes of death .In the aftermath of the human immunodeficiency virus (HIV/AIDS). The incidence rate in India was 78.23 percent. A 28-year-old ex-factory worker patient worker) was admitted to HUSM's medical centre. Ward with on-and-off, long-term complaints. One-month fevers, generalized limb pain. Dysphagia (choking) and weakness for two weeks for one week while ingesting solid food).She resembles her parents' descriptions of her. Changes in conduct had occurred, and he had become socially isolated and had been through a lot. One month previously, there had been an increase in cognitive decline. Appetite, as well as generalized upper and lower limb numbness a shortcoming. TBM is a rare form of tuberculosis manifestation in affluent countries, although it is still a major problem in underdeveloped nations. This patient's diagnosis of TBM was made purely on the basis of her clinical symptoms, CSF PCR results, and clinical improvements with anti-TB medication. TBM must be confirmed with a CSF test. TBM in CSF examination typically reveals lymphocytic predominant pleocytosis, increased protein levels, and low glucose levels. The patient's CSF values, on the other hand, do not match the normal TBM findings. This is a very uncommon symptom of tuberculous meningitis. It emphasises the necessity of early detection and treatment to lessen the severity of the condition and enhance clinical outcomes for people with impairments.

Keywords:-

Access this article online		
Home page: www.mcmed.us/journal/abs	**Quick Response code**	
Received:20.08.2021	**Revised**:24.08.2021	**Accepted**:30.08.2021

INTRODUCTION

Tuberculosis has a high global incidence rate, particularly in poorer countries. The World Health Organization (WHO) claims that according to 2013 figures, there were 9 million people.1.5 people newly diagnosed with tuberculosis [1, 2]. Approximately one million of these instances resulted in death. Tuberculosis is the second highest cause of death in the India [3]. In the area of infectious diseases, death is one of the most common causes of death .In the aftermath of the human immunodeficiency virus (HIV/AIDS) [4, 5]. The incidence rate in India was 78.23 percent. Individuals per 100,015 with a mortality rate of among that same population, at a rate of 5.37 people throughout the year 2013 .There was a rise in the number of new patients with the increase from 15,000 in 2005 to 19,251 in 2011.

Corresponding Author:- **Dr. Varghese Zachariya, Professor, SVMCH&RC**

The majority of patients are between the ages of 21 and 60 of years old .The following is a list of the most common words in descending order of frequency. Extrapulmonary TB can be seen in a variety of places lymph nodes, pleura, and genitourinary system, the digestive tract, bones and joints, the meninges, and the spinal cord. Peritoneum and pericardium are two different types of peritoneum [6, 7]. Tuberculosis is a type of tuberculosis. TBM accounts for around 5% of all patients of meningitis. The extrapulmonary illnesses are seen all across the world. Unusual and TBM's late manifestations may result in a delay in diagnosis, which could have serious consequences [8, 9]. The prognosis for the illness In addition, it is typical of acid-fast bacilli smears and cerebrospinal fluid clinical presentations the presence of anomalies in the cerebrospinal fluid (CSF) varies from patient to patient. Delays in recognizing and treating TBM.As a result, It's critical to recognize a unique appearance. TBM is a highly endemic disease. TBM with unusual indications and symptoms is a rare occurrence, where the patient was admitted to the hospital [10]. It was given depending on the symptoms of the woman, which hinted to the federal government's involvement taking into consideration her neurological system [11, 12]. Polymerase usage and societal backdrop. CSF testing using the Chain Reaction (PCR) method.

Clinical presentation:

A 28-year-old ex-factory worker patient worker) was admitted to HUSM's medical centre. ward with on-and-off, long-term complaints. One-month fevers, generalised limb pain. Dysphagia (choking) and weakness for two weeks for one week while ingesting solid food).She resembles her parents' descriptions of her. Changes in conduct had occurred, and he had become socially isolated and had been through a lot. One month previously, there had been an increase in cognitive decline. Appetite, as well as generalized upper and lower limb numbness a shortcoming. Delusion, and afterwards got deafeningly deaf to communicate with her parents Eventually, the woman succeeds and was confined to his bed. Lethargy that persists, a lack of sleep, and the ability to tolerate only soft foods and liquids. Throughout her illness, she ate a plant-based diet as well. When the patient was admitted, he was with a GCS, you'll be disoriented and uncooperative of ten out of fifteen (E3V2M5). She had a unique experience a 20-minute syncopal occurrence .The limbs jerk abnormally. A physical examination dehydration was found to be severe, with no signs of dehydration. Lymph nodes that can be felt, neck stiffness, and muscle tension on a scale of 3/5, wasting with a loss of power. Signs of an upper motor neuron in all limbs grade 3 lesion with deep tendon responses + in all limbs, with Babinski's sign on both sides, but normal muscular tone and Vertical nystagmus is a type of nystagmus that occurs when the eye Her body tipped the scales at 36 kilogrammes..Her blood pressure was 98/64 mmHg, and she had a heart rate of 140 beats per minute.A body temperature of 36.5°C and a heart rate of 120 beats per minute .Her Rankin Modified Score was 5. At the start of the presentation Results from the lab showed inflammatory biomarkers that were high with a level of 15.5 x 109 white blood cells , hypernatremia (157mmol/L), and an ESR of 38 mm/hr)CSF testing revealed that the patient's CSF was normal. Non-enhanced and brain contrast CT scans revealed significant frontal cerebral atrophy on both sides, although tuberculoma or hydrocephalus are not present. The patient was started on anti-TB medication right away (isoniazid, rifampicin, and ethambutol).Oral pyrazinamide and pyrazinamide) after 3 months of dexamethasone. The patient responded well to anti-TB treatment.

Discussion:

TBM is a rare form of tuberculosis manifestation in affluent countries, although it is still a major problem in underdeveloped nations. This patient's diagnosis of TBM was made purely on the basis of her clinical symptoms, CSF PCR results, and clinical improvements with anti-TB medication. TBM must be confirmed with a CSF test. TBM in CSF examination typically reveals lymphocytic predominant pleocytosis, increased protein levels, and low glucose levels. The patient's CSF values, on the other hand, do not match the normal TBM findings. The presence of Mycobacterium TB bacilli in the CSF should be demonstrated for an optimal diagnosis. However, CSF smear microscopy is insensitive, as it only tests positive in 5%–30% of patients, while culture procedures are time-consuming and inconvenient. The presence of Mycobacterium TB bacilli in the CSF should be demonstrated for an optimal diagnosis. However, CSF smear microscopy is insensitive, as it only tests positive in 5%–30% of patients, while culture procedures are time-consuming and inconvenient. The use of polymerase chain reaction (PCR) technique to detect Mycobacterium tuberculosis DNA is now generally acknowledged. Multiplex PCR tests, which allow for simultaneous amplification of many target genes (IS6110, protein b, and MPB64), have helped to raise sensitivity to 85–95 percent and specificity to 100 percent. To ensure good outcomes and lower patient morbidities and mortality rates, TBM must be diagnosed and treated as soon as possible. Using the clinical images as a guide,based on test data, a judgement was made She was forced to start taking anti-TB medicine. Her treatment plan was to place her in intense therapy for two years and months (Isoniazid, Rifampicin, Pyrazinamide, and other antibiotics) maintenance therapy (e.g., ethambutol) for a period of ten months (Isoniazid and Rifampicin). The use of glucocorticoids aided in the provision of clinical

advantages for the patient, such as making it easier to go in and out of the hospital. The continuance of anti-tuberculosis treatment, and reducing the number of severe, negative events linked to the medication that should be taken over a period of time decreasing dosages for 6–8 weeks.

Conclusion:

This is a very uncommon symptom of tuberculous meningitis. It emphasises the necessity of early detection and treatment to lessen the severity of the condition and enhance clinical outcomes for people with impairments.

REFERENCES:

1. Khanna, S. R., Kralovic, S. M., & Prakash, R. (2016). Tuberculous meningitis in an immunocompetent host: A case report. *American Journal of Case Reports*. https://doi.org/10.12659/AJCR.900762.
2. Dev, N., Bhowmick, M., Chaudhary, S., & Kant, J. (2019). Tuberculous encephalopathy without meningitis: A rare manifestation of disseminated tuberculosis. *International Journal of Mycobacteriology*. https://doi.org/10.4103/ijmy.ijmy_131_19.
3. Angelino, G., De Pasquale, M. D., De Sio, L., Serra, A., Massimi, L., De Vito, R., Marrazzo, A., Lancella, L., Carai, A., Antonelli, M., Giangaspero, F., Gessi, M., Menchini, L., Scarciolla, L., Longo, D., & Mastronuzzi, A. (2016). NRASQ61K mutated primary leptomeningeal melanoma in a child: Case presentation and discussion on clinical and diagnostic implications. *BMC Cancer*. https://doi.org/10.1186/s12885-016-2556-y.
4. Berhe, T., Melkamu, Y., & Amare, A. (2012). The pattern and predictors of mortality of HIV/AIDS patients with neurologic manifestation in Ethiopia: A retrospective study. *AIDS Research and Therapy*. https://doi.org/10.1186/1742-6405-9-11.
5. Daniel, B., Grace, G., & Natrajan, M. (2019). Tuberculous meningitis in children: Clinical management & outcome. In *Indian Journal of Medical Research*. https://doi.org/10.4103/ijmr.IJMR_786_17.
6. Pant, I., Chaturvedi, S., Singh, A. K., Singh, G., & Tiwari, S. (2019). A rare case of diffuse intracranial aspergillosis masquerading as skull base meningioma in an immunocompetent patient. *Clinical Neuropathology*. https://doi.org/10.5414/NP301106.
7. Hussein, R. A., Al Jumaily, M. H. F., & Al-Shaikh Hamed, R. H. M. A. (2019). Hypertrophic pachymeningitis (HP). overview of the underlying etiology, presentation & management. *International Journal of Pharmaceutical Research*. https://doi.org/10.31838/ijpr/2019.11.01.082.
8. S.R., K., S.M., K., & R, P. (2016). Tuberculous meningitis in an immunocompetent host: A case report. In *American Journal of Case Reports*.
9. Cisse, Y., Sy, E. H. C. N., Diop, A., Sarr, H., Barry, L. F., & Nzisabira, J. M. (2021). Recurrent tuberculous cerebellar abscess: A case study and review of the literature. *International Journal of Surgery Case Reports*. https://doi.org/10.1016/j.ijscr.2021.105832.
10. Feldman, A., & Hackney, J. (2018). Primary diffuse leptomeningeal gliomatosis: A mimicker of tuberculous meningitis. *Annals of Clinical and Laboratory Science*.
11. Janvier, F., Mérens, A., Fabre, M., Delacour, H., Pelletier, C., Soler, C., Rapp, C., & Cavallo, J. D. (2010). Tuberculous meningitis: Diagnosis and therapeutic difficulties. *Annales de Biologie Clinique*. https://doi.org/10.1684/abc.2010.0438.
12. Verma, R., Lalla, R., Patil, T. B., & Tiwari, N. (2013). A rare presentation of cerebral venous sinus thrombosis associated with tubercular meningitis. *BMJ Case Reports*. https://doi.org/10.1136/bcr-2013-009892.