IJMPR 2023, 7(7), 88-89

International Journal of Modern Pharmaceutical Research
www.ijmpronline.com

ISSN: 2319-5878
IJMPR
Case Study
SJIF Impact Factor: 5.273

A CASE REPORT ON TUBERCULOUS MENINGITIS

Emilin Scaria[1], Arya Narayanan[2]*, Dr. Dhanya Dharman[3] and Prof. Dr. Shaiju S. Dharan[4]

[1,2]Pharm D Intern (Department of Pharmacy Practice, Ezhuthachan College of Pharmaceutical Sciences, Marayamuttom, Thiruvananthapuram, Kerala, India).
[3]Assistant Professor (Department of Pharmacy Practice, Ezhuthachan College of Pharmaceutical Sciences, Marayamuttom, Thiruvananthapuram, Kerala, In**Narayanan[2]**dia).
[4]Principal/HOD (Department of Pharmacy Practice, Ezhuthachan College of Pharmaceutical Sciences, Marayamuttom, Thiruvananthapuram, Kerala, India).

Received on: 20/05/2023
Revised on: 09/06/2023
Accepted on: 30/06/2023

***Corresponding Author**
Arya Narayanan
Pharm D Intern (Department of Pharmacy Practice, Ezhuthachan College of Pharmaceutical Sciences, Marayamuttom, Thiruvananthapuram, Kerala, India).

INTRODUCTION

Tuberculous meningitis (TBM) is a severe form of tuberculosis That indicates severe neurological complications. Tuberculous infection occurs through the inhalation of aerosol droplets containing M.tuberculosis bacilli.[1] The M .tuberculosis moves across the lung epithelium, leading to the activation of lung cells like the dendritic cells, neutrophils and alveolar macrophages which finally leads to the release of cytokines and chemokines that contributes to the immune protection. Meningeal tuberculoma is induced usually when the M tuberculosis breaches its barrier.[2,3] This condition is associated with high morbidity and mortality. Lethality due to delayed treatment and misdiagnosis has been alarmingly increasing among the patients affected with TBM. Due to the low incidence rate in many affluent countries, there is a general lack of familiarity and misconceptions, which results in delayed diagnosis and treatment with poor outcomes. Through this case report, we aim to highlight the typical clinical presentation, imaging findings and diagnostic pitfalls in the diagnosis of Tubercular meningitis.

CASE HISTORY

A 71 year old male patient was admitted with complaints of episodes of seizure and fever since 2 days and has shown violent behavior at the day of admission. He also had complaints of cough with SOB for past three days. The EEG reports were obtained with 10-20 system electrode application and wake record was also obtained which shows background activity in alpha range on posterior head regions reacting to EO and MA. His brain MRI report showed age related mild diffuse cerebral atropy along with white matter ischemic changes. Disproportionate prominence of bilateral and third ventricles. History of pulmonary tuberculosis on past 3 years back treated. However CSF and blood cultures were suggestive of ongoing tuberculosis.

During admission time temperature-97°F, respiratory rate -18 cycles/min, pulse-120 beats/min, BP-190/110 mmHg. Under laboratory investigation creatine(1.6) blood urea(42)HbA1C (6.2)ammonia(52) was found elevated. the sulcal prominence –mild hydro cephalus, CSF to rule out tubercular meningitis While patient stayed in the hospital ,he was treated with anti psychotic drugs and analgesics, anti TB medications. The patient's condition was recovered after 14 days of treatment and the patient better during discharge.

DISCUSSION

Tuberculous meningitis (TBM) is a severe form of tuberculosis That indicates severe neurological complications. Tuberculous infection occurs through the inhalation of aerosol droplets containing M.tuberculosis bacilli.[1] The M .tuberculosis moves across the lung epithelium, leading to the activation of lung cells like the dendritic cells, neutrophils and alveolar macrophages which finally leads to the release of cytokines and chemokines that contributes to the immune protection. Meningeal tuberculoma is induced usually when the M tuberculosis breaches its barrier.[2,3] This condition is associated with high morbidity and mortality. Lethality due to delayed treatment and misdiagnosis has been alarmingly increasing among the patients affected with TBM. Due to the low incidence rate in many affluent countries, there is a general lack of familiarity and misconceptions, which results in delayed diagnosis and treatment with poor outcomes. Through this case report, we aim to highlight the typical clinical presentation, imaging findings and diagnostic pitfalls in the diagnosis of Tubercular meningitis.

The diagnosis is based on patient history, laboratory investigations and clinical examinations. During admission time temperature-97°F, respiratory rate -18 cycles/min, pulse-120 beats/min,BP-190/110 mmHg. Under laboratory investigation creatine(1.6) blood

urea(42) HbA1C (6.2) ammonia(52) was found elevated. His brain MRI report showed age related mild diffuse cerebral atropy along with white matter ischemic changes. Disproportionate prominence of bilateral and third ventricles. Initialy the symptoms started with episodes of seizure and fever since 2 days and has shown violent behavior at the day of admission. He also had complaints of cough with SOB for past three days. On examination the patient were sick and by considering the physical and clinical examination the diagnosis were done.

Tuberculous meningitis (TBM) is a severe form of tuberculosis That indicates severe neurological complications. Tuberculous infection occurs through the inhalation of aerosol droplets containing M.tuberculosis bacilli.[1] The patient was counselled about antitubercular drugs and its side effects and also about the proper diet to be taken. For the treatment on disease antitubercular agents, antipsychotics and other supportive measures were given. On discharge antitubercular agents and proper patient counselling was recommended.

Tuberculous meningitis (TBM) is a severe form of tuberculosis That indicates severe neurological complications. Tuberculous infection occurs through the inhalation of aerosol droplets containing M.tuberculosis bacilli.[1] Meningeal tuberculoma is induced usually when the M tuberculosis breaches its barrier.[2,3] This condition is associated with high morbidity and mortality. Lethality due to delayed treatment and misdiagnosis has been alarmingly increasing among the patients affected with TBM. Due to the low incidence rate in many affluent countries, there is a general lack of familiarity and misconceptions, which results in delayed diagnosis and treatment with poor outcomes. Through this case report, we aim to highlight the typical clinical presentation, imaging findings and diagnostic pitfalls in the diagnosis of Tubercular meningitis.

REFERENCE

1. A case rpoet on complicated tuberculous meningitis monitoring editor: Alexander Muacevic, Adler Nadia Jawad J, Ali Z, editors.
2. Rare clinical presentation of tuberculous meningitis: A case report Jian Liang Tan, 1 Suszilla Nordin,2 and Alwi Muhd Besari2.
3. Taofiki A, Sunmonu Olufunmi A. Tuberculous meningitis presenting with unusual clinical features in Nigerians: Two case reports Morenikeji A Komolafe.
4. Rali P, Arshad H, Bihler E. A case of tuberculous meningitis with tuberculoma in nonimmunocompromised immigrant.
5. Rare clinical presentation of Tuberculous meningitis: Acase report September 2017 Malaysian. Journal of medical science.
6. Haenssle HA, Kiessling J, Kempf VA, Fuchs T, Neumann C, Emmert S, et al. Tuberculous Meningitis. J Am Acad Dermatol, 2006; 54: 1-4.
7. Handler NS, Handler MZ, Rubins A, Rubins S, Septe M, Tuberculous Meningitis JEADV, 2018; 32: 537-41.