

THE GREAT MIMICKER: CEREBRAL TUBERCULOMA IN A YOUNG WITH HIV POSITIVE

Fauzan Faqih¹, Mayumi Agestia Sesariana², Baiq Fanindya Harliza², Triana Dyah Cahyawati²,
Novia Andansari Putri²

Department of Radiology, Faculty of Medical and Health Sciences, Mataram University,
Mataram, Indonesia



INTRODUCTION

Indonesia is facing a severe public health syndrome driven by systemic failures in managing both Tuberculosis (TB) and HIV. **As a global TB epicenter with a massive detection gap where only 47% of cases were identified as of August 2025** the nation struggles with uncontrolled transmission. This crisis is dangerously amplified by a catastrophic failure in HIV management, with a national viral suppression rate of only 14%. This leaves a large, **immunocompromised population highly vulnerable to TB**, creating a deadly interaction between the two diseases that is starkly reflected in provinces like West Nusa Tenggara (NTB).

In NTB, the consequences of this national crisis are clear. Despite the province's success in screening over 81% of TB patients for HIV, this initial step is critically undermined by subsequent failures in retaining patients on antiretroviral therapy (ART) and providing TB Preventive Therapy (TPT). This gap between diagnosis and sustained care ensures that TB remains a leading cause of death for people living with HIV. Ultimately, **the high prevalence of both TB and its severe neurological complication, cerebral tuberculoma, in NTB is not an anomaly but a direct and predictable outcome of these intertwined epidemics.**



OBJECTIVE

This case report aims to highlight the clinical and radiological features of tuberculoma in a young adult with HIV, emphasizing the shifting epidemiology of intracranial TB in this demographic



METHODS

A 36 year old male, recently diagnosed with HIV (B20), presented with a one week history of escalating headaches and one year history of diplopia (double vision). A neurological examination revealed left sixth cranial nerve palsy. To determine the cause, a contrast-enhanced Magnetic Resonance Imaging (MRI) of the brain was conducted.



CASE ILLUSTRATION

A 36-year-old male, newly diagnosed with HIV and pulmonary Tuberculosis, was started on anti-tuberculosis therapy in February 2024. One month into treatment, he developed persistent diplopia (double vision), followed by severe headaches the next month. His condition worsened, leading to a two-week hospitalization during which he suffered a seizure. The diplopia remains a persistent neurological symptom.



Figure 1. Thorax PA
Fibroinfiltrate is seen in the upper, middle, and lower fields of the both lung

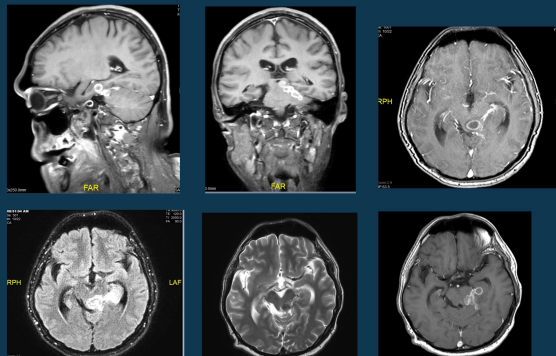


Figure 2. The MRI showed multiple rim-enhancing lesions in the left brainstem, left cerebellum, left ambient cistern, left temporal subcortex, and mild ventricular dilation. These findings suggest tuberculous meningitis and tuberculoma.



CONCLUSION

The uncontrolled HIV epidemic serves as a primary driver for the rising incidence and severity of Tuberculosis in Indonesia. It creates a profoundly immunosuppressed population where Mycobacterium tuberculosis can easily disseminate beyond the lungs to form devastating neurological lesions like cerebral tuberculomas. This case is a clinical archetype of that deadly synergy, where the development of a tuberculoma represents a severe, end-stage complication of uncontrolled co-infection. Therefore, preventing these life-threatening tuberculomas and curbing the wider TB epidemic is impossible without an urgent, systematic focus on achieving widespread viral suppression in the HIV population through robust, integrated care.

REFERENCE

