



A Great Mimicker - A Case Report

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Abstract

An 18 years old girl presented with progressive worsening of her gait and speech. Clinically she had bilateral cerebellar signs and staccato speech. MRI showed multiple iso to hypointense nodules at multiple intracranial and brainstem lesions surrounded by vasogenic edema. Antituberculosis and dexamethasone were initiated. During clinic review, she shows marked improvement of her gait and speech. This case report aimed to establish to consider disseminated tuberculosis one of differential diagnosis for multiple intracranial and brain stem lesion among immunocompetent patient.

Introduction

Tuberculosis are common in Malaysia, however only 0.5% of cases of tuberculoma that can be found intracranial and intramedullary concurrently [1]. We report a case of disseminated tuberculoma in immunocompetent patient.

Case Presentation

An 18 year old girl presented with progressive worsening of her gait and speech for 2 weeks. She had no symptoms of raised intracranial pressure. She had previously no exposure with tuberculosis patient. Clinically she had bilateral cerebellar signs and staccato speech. Hence, proceeded with MRI brain showing multiple iso- to hypointense nodules at multiple intracranial and brainstem lesions surrounded with vasogenico edema. Her chest X-ray was normal and sputum AFB was also negative. Other routine blood investigations were normal and infectious screening has been negative (Figure 1). Antituberculosis and dexamethasone were initiated. During review at outpatient clinic after 2 months treatment, she shows marked improvement of her gait and speech (Figure 2). Contrast enhanced CT (CECT) brain showed reduction of the tuberculomas size at the interim treatment.

Discussion

This case illustrates the tuberculomas mimic the presentation of other intracranial lesions (brain tumor, brain abscess) that showing from MRI and CECT brain. MRI brain is the best modality in differentiating tuberculoma with other intracranial lesions by showing hypo-isointense in T1 weighted images and hyperintense in T2 FLAIR [2]. But brain biopsy is the gold standard to diagnose tuberculoma even though it is not mandatory. CSF examinations useful in supporting diagnosis too [3]. Early initiation antituberculosis and oral dexamethasone improves the clinical outcome. Treatment durations is similar in treating tuberculosis meningitis and depending on the clinical outcome and radiological changes. Thus MRI or CECT brain is helpful in monitor regression the size of tuberculoma and in determine duration of treatment.

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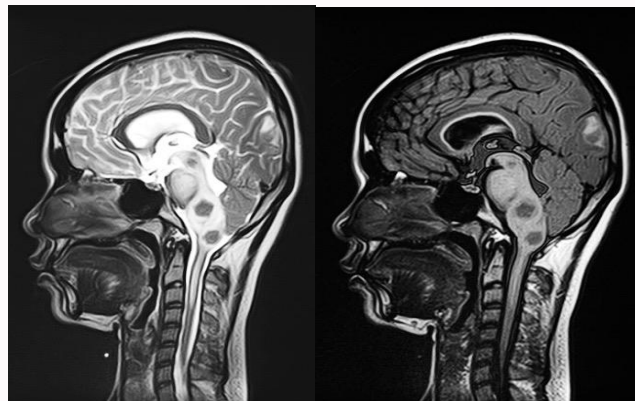


Figure 1: Multiple hypointense lesions at brainstem (T2 weighted image & T2 FLAIR) – pre treatment.

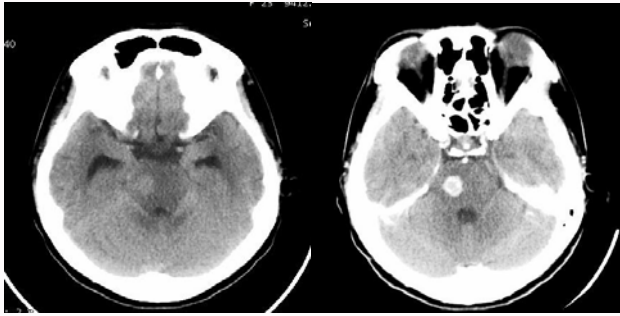


Figure 2: Pre treatment and post 2 months treatment.

Conclusion

To diagnose tuberculoma solely without primary lung lesion is extremely rare. Nevertheless, in the area of high prevalence rate of tuberculosis, diagnosing tuberculoma should be highly considerate in the situation of presence focal neurological deficit with multiple brain lesions radiologically.

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