

Two Spinal Tuberculosis In A Family

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INTRODUCTION:

Spinal Tuberculosis (STB) is a destructive form of tuberculosis leading to syringomyelia, neurological deficits, and spinal osseous defects.^[1] Paraplegia is the most devastating complication of STB.^[1] In this article, we will focus on 2 cases of spinal tuberculosis in a family (mother and daughter). Both have presented with back pain and paraplegia.

CASE REPORT 1

Madam S is a 55 years old lady with 3 months history of worsening back pain associated with gradual deterioration of lower limbs neurology. Transpedicular biopsy findings were consistent with spinal tuberculosis. Her chest radiograph was clear and her sputum examination had no acid-fast bacilli. She was started on anti-TB medications. Posterior spinal decompression with instrumentation and fusion surgery was performed. Subsequently she was discharged to spinal rehabilitation center. 1-year post surgery and anti-TB treatment, she was well and ambulating without aids.

CASE REPORT 2

Madam N (Madam S' daughter) is a 27 years old lady and are staying together. 3 months after her mother was diagnosed with spinal tuberculosis, she was diagnosed with disseminated TB (involving lung, lymph nodes, meninges). Despite on-going 8 months anti-TB medications she had developed back pain with gradual neurological deficits. Thus requiring posterior spinal decompression with instrumentation and fusion surgery. Active spinal rehabilitation and additional 1year anti-TB medications were prescribed.

DISCUSSIONS:

Mycobacterium tuberculosis (MTB) has infected an estimated 2 billion persons worldwide and remains a leading cause of global mortality. Nearly 20% of patients with TB develop extrapulmonary manifestations. Skeletal TB accounts for 10–20% of all extrapulmonary TB, with spinal involvement in 50–60% of all skeletal TB cases or in <1% to

5% of all TB cases.^[3] Retrospective studies describing over 3000 patients with spinal TB have noted that as high as 80% of these cases also have evidence of pulmonary TB (either active or inactive).^[3] Chest radiography is the mainstay of diagnosis for pulmonary TB but it can be normal in 25–40% of cases.^[2] Which may reflected in our reports, Madam S was diagnosed spinal tuberculosis without abnormal chest radiograph finding and absence of acid fast bacilli in sputum. Yet her daughter had tuberculosis infection 3 months later.

Evidence of transmission (other than direct inoculation) of MTB from extrapulmonary sources is lacking in the current literature and in-depth evaluations of the infectiousness and risk of transmission from extrapulmonary TB have not been adequately documented in the literature.^[3] Current guidelines offer no clear guidance on whether or not all patients with extrapulmonary TB should be evaluated for concurrent pulmonary involvement nor is there an appropriate infection control strategy delineated for these patients.^[3] However in our center, all patients who are suspected or diagnosed with spinal tuberculosis will be screened for pulmonary TB.

CONCLUSION:

There is lack of evidence regarding whether extra-pulmonary tuberculosis, especially spinal TB is contagious. Thus deeper understanding regarding isolation practices and appropriate evaluation of pulmonary involvement is crucial.

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