

Images in Clinical Tropical Medicine

Extrapulmonary Tuberculosis Presenting With Double Vision in a Resource-Limited Tropical Setting

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A 16-year-old boy was admitted to a rural hospital in the Democratic Republic of Congo with a 1-month history of abdominal pain, headache, and nightly fevers, and a 1-week history of seizures. Physical examination included general weakness, low-grade fever (37.5°C), neck rigidity, and bilateral abducens palsy leading to double vision (Figure 1A and B), typical clinical findings consistent with tuberculous basal meningitis.¹ The latter was supported by lumbar puncture showing white blood cells of 720 cells/mm³ (90% mononuclear) and elevated protein (Pandy test positive) but negative Ziehl-Neelsen stain. In 20% of meningeal tuberculosis cases, the cerebrospinal fluid cell count is between 500 and 1,500/mm³, and in 65% between 100 and 500/mm³.¹

In addition, physical examination revealed spinal tenderness at T 10-11 with normal reflexes, sensation, and strength of lower extremities bilaterally. Abdominal and cardiopulmonary examination was unremarkable. Spinal X-ray showed destructive anterior spondylodiscitis at T 10-11 with a paravertebral abscess (Figure 1C), again typical findings for Pott's disease² and

explaining the abdominal pain. Simultaneous pulmonary tuberculosis or human immunodeficiency virus (HIV) infection were ruled out by chest X-ray and a HIV rapid test.

Due to pulmonary tuberculosis already experienced as an infant and current extrapulmonary manifestation, an extended treatment scheme with rifampicin, isoniazid, ethambutol, pyrazinamide, and streptomycin (2SRHZE/RHZE/9RH), as well as initially beginning with corticosteroids (prednisone 1 mg/kg) was chosen.

Within 2 weeks, the abducens palsy was resolved completely, the abdominal pain improved, and the spinal fluid cell count dropped to 23 cells/mm³. One month later, the patient was back to normal daily life, playing football with friends.

Tuberculosis is still endemic in many low- and middle-income countries such as the Democratic Republic of Congo with a tuberculosis incidence of 323 cases per year per 100,000 inhabitants and a high number of undetected cases every year.³

This case illustrates that a good clinical examination, knowledge on the epidemiological background, and basic

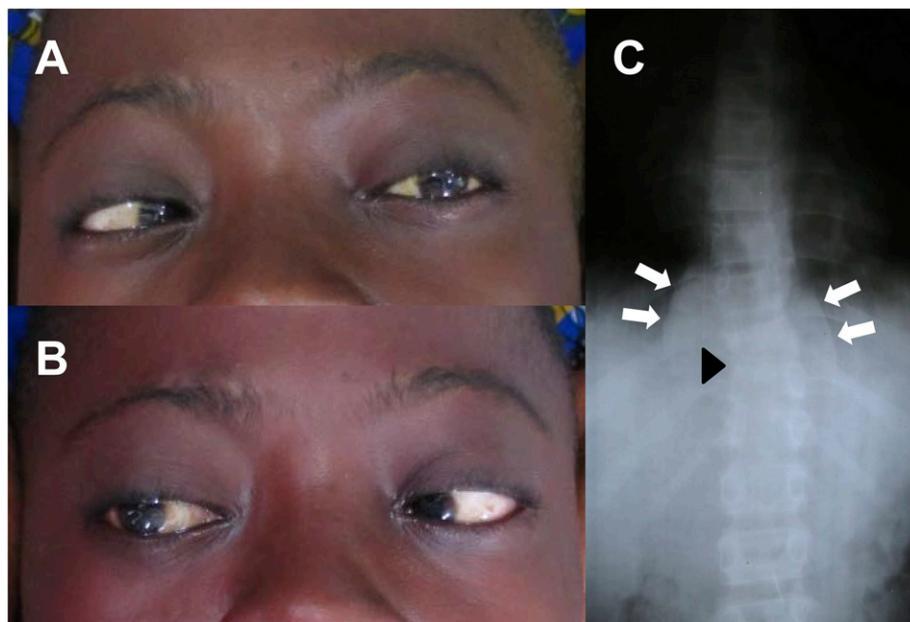


FIGURE 1. (A and B) bilateral abducens palsy as a sign for tuberculous basal meningitis and (C) anterior spondylodiscitis at T 10-11 with a paravertebral abscess (Pott's disease). This figure appears in color at www.ajtmh.org.

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laboratory technology may allow diagnosis and successful treatment even without modern technologies such as polymerase chain reaction and magnetic resonance imaging/computed tomography scan in resource-limited settings.

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