

Tuberculous Meningoencephalitis and Pulmonary Tuberculosis

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Introduction

TB meningitis is a rare, subacute disease, with typical findings including headache, altered mental status, stroke, hydrocephalus and cranial neuropathies. When it progresses, coma or seizures may ensue.

The diagnosis can be difficult and may be based only on clinical findings without definitive microbiological proof.

The prognosis largely depends on the neurological status at the time of presentation and time to treatment initiation. Mortality rate between 7% and 69%. Neurological sequelae occur in up to 50% of survivors

Summary of case details

Male, age 38 years

Clinical presentation

- ❖ paresthesias in the lower limbs, started for about 14 days, with muscular weakness and progressing to paraparesis and coma, without signs of meningeal irritation

CSF findings:

- ❖ leukocytosis (480 cells/ μ L)
- ❖ elevated protein level (250 mg/dL)
- ❖ low glucose level (40 mg/dL)

It was used GeneXpert MTB/RIF, a NAAT (nucleic acid amplification test) for detection of *M. Tuberculosis* in CSF and BAL

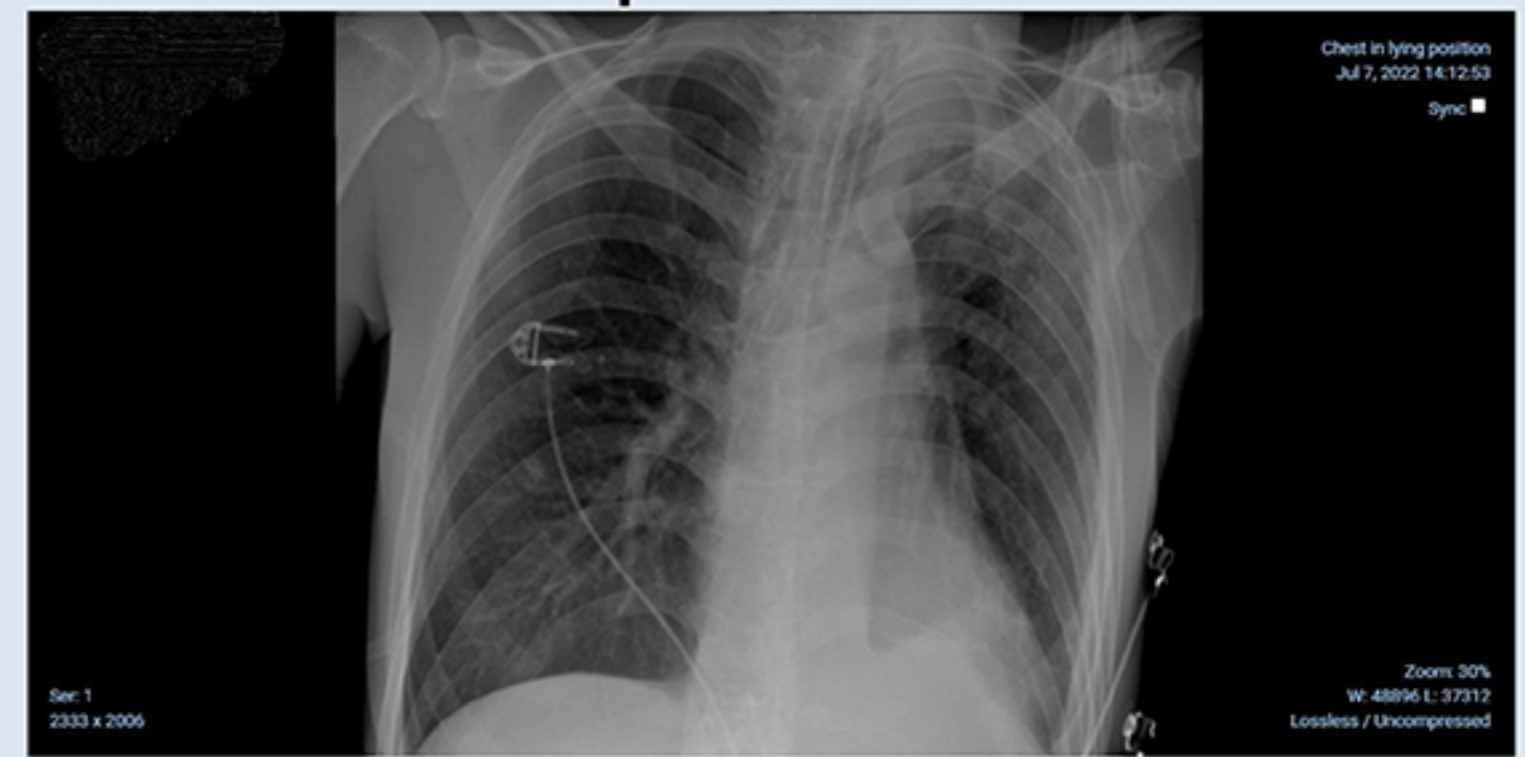
CT scan: hydrocephalus without an obstructive level, voluminous left apical consolidation, tree in bud pattern

IRM scan: spinal cord edema T10-T12

- ❖ Initially ETT mechanically ventilated, later tracheostomy and successful weaning from mechanical ventilation.
- ❖ Treatment:
 1. antituberculosis medication
7/7 Rifampicin 600 mg, Isoniazid 300 mg, Ethambutol 1200 mg, pyrazinamide 1500 mg
 2. Corticosteroids therapy
 3. adjustment of antibiotic therapy according to the results of cultures

Results

- Initially ETT mechanically ventilated, later tracheostomy and successful weaning from prolonged mechanical ventilation.
- improvement of the neurological status with recovery from coma
- paraplegia of the lower limbs remane as sequela
- the patient was discharged after two months of hospitalization



Conclusions

- Tuberculous meningitis is a serious form of extrapulmonary tuberculosis, which has severe evolution and poor prognosis.
- Risk factors in the development of meningitis TB are conditions accompanied by immunosuppression - infection with HIV, comorbid status, incarceration history, and vulnerability socio-economic.
- Antituberculosis treatment must be started immediately

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