



2025

KARNATAKA RADIOLOGY EDUCATION PROGRAM

CASE PRESENTATION

CASE OF NEUROSARCOIDOSIS

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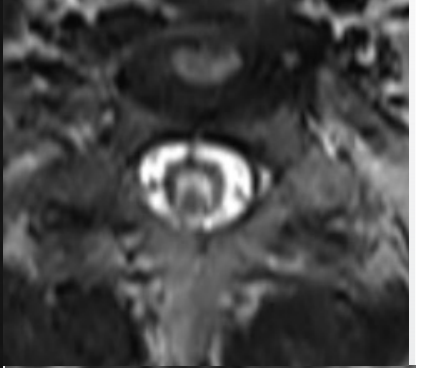
PRESENTER: DR.ANUBHAV CHANDNA

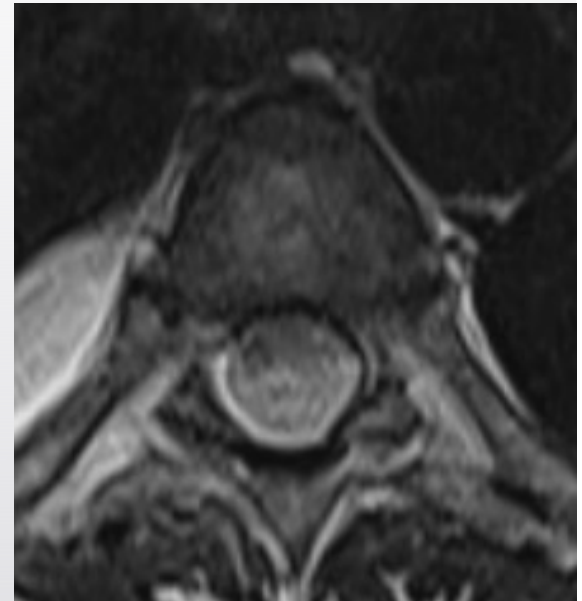
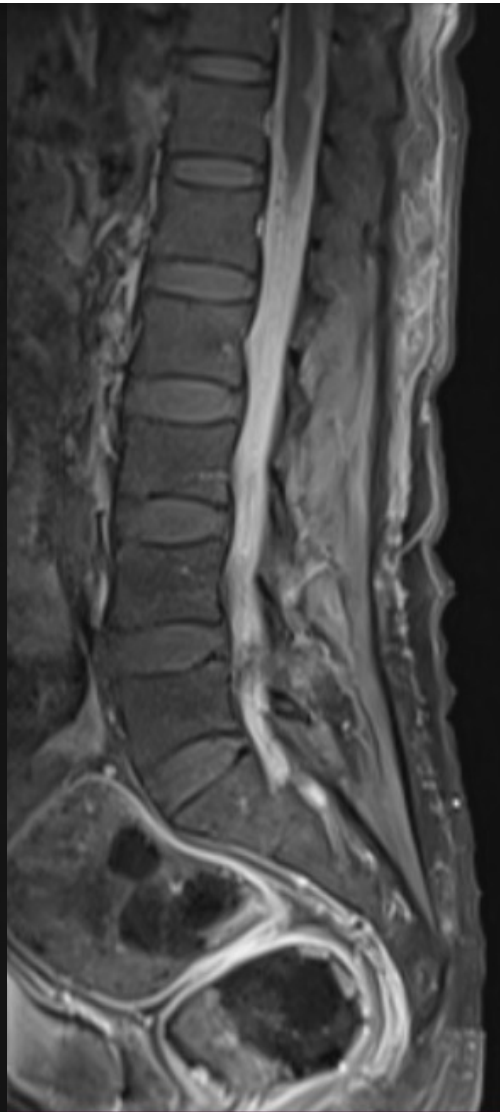
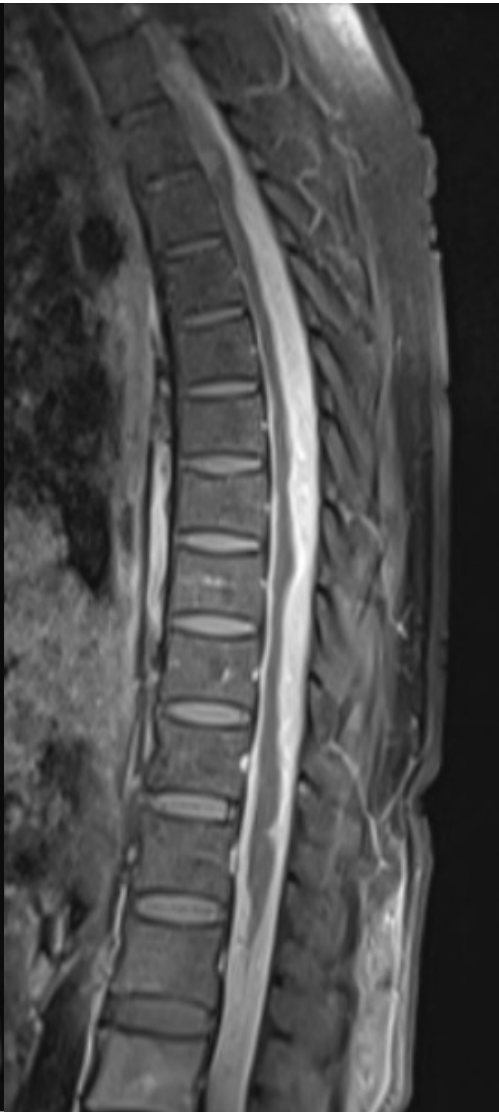
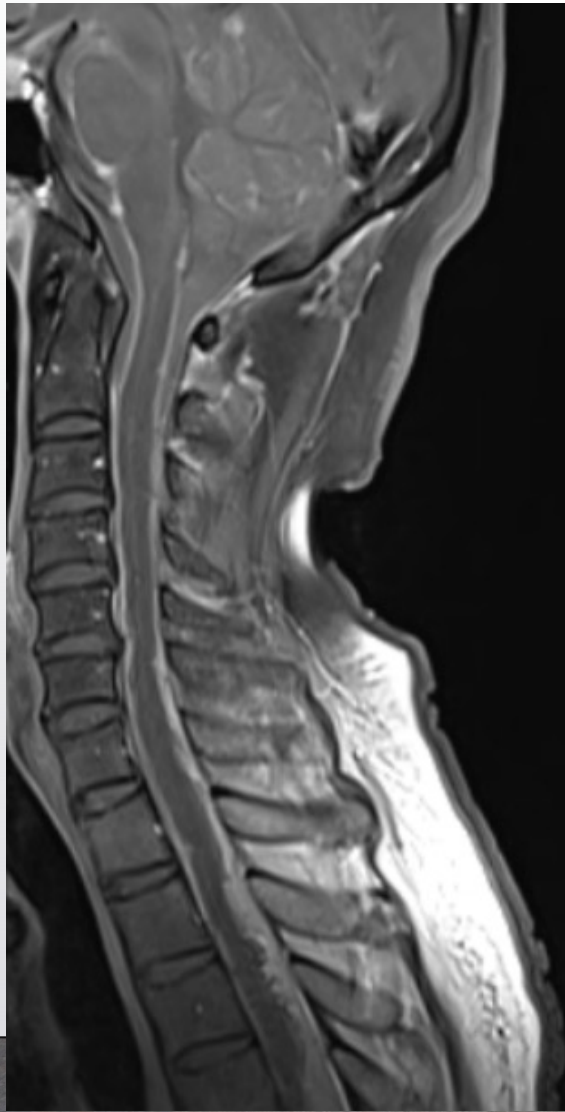


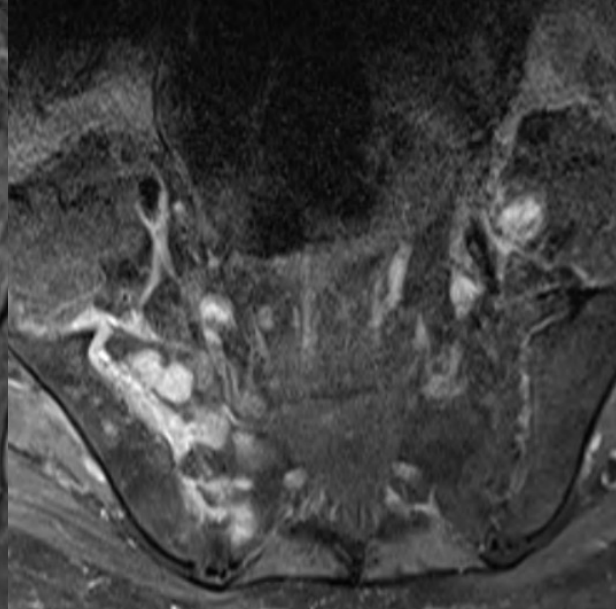
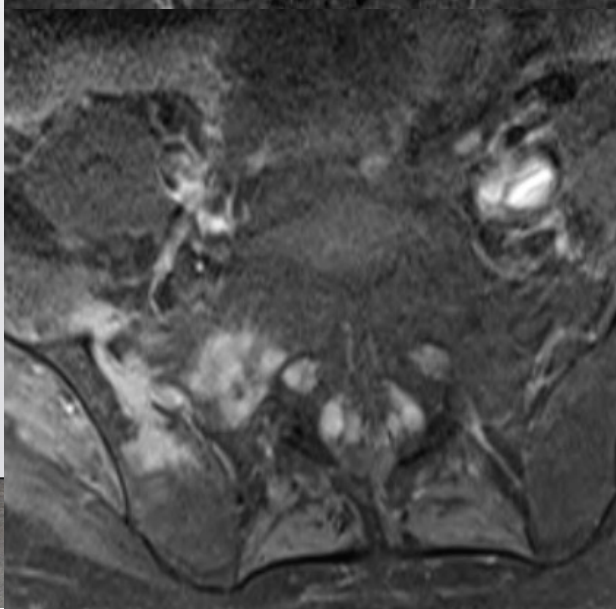
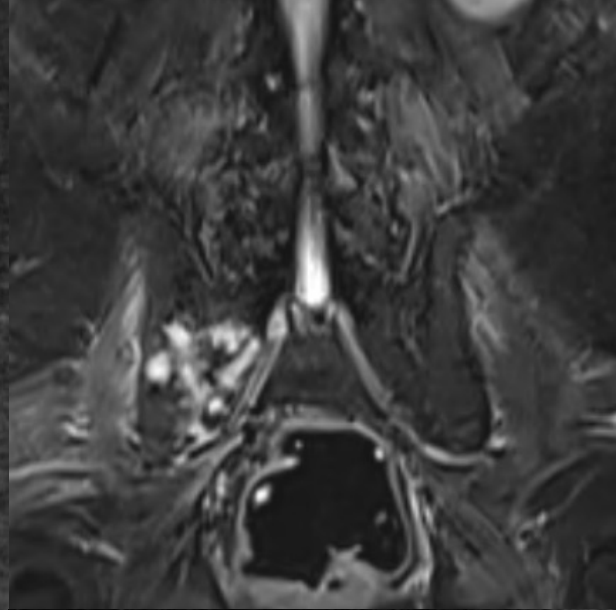
- 35 year old male presented with past history of fever and chills, headache 45 days prior followed by acute onset bilateral lower limb weakness, loss of sensation below the waist level associated with urinary retention.
- Previous MRI done at an outside MRI centre showed multiple ring enhancing lesions in the supratentorial and infratentorial brain parenchyma. No abnormality was seen in the spine. Thus a diagnosis of tuberculosis was suspected.
- Lumbar puncture was performed with the CSF analysis revealing: lymphocytic pleocytosis (88%) with raised protein and sugar levels. ADA levels were mildly raised. (47 U/L)
- CSF fluid was also sent for RT-PCR which was negative for *Mycobacterium tuberculosis*.

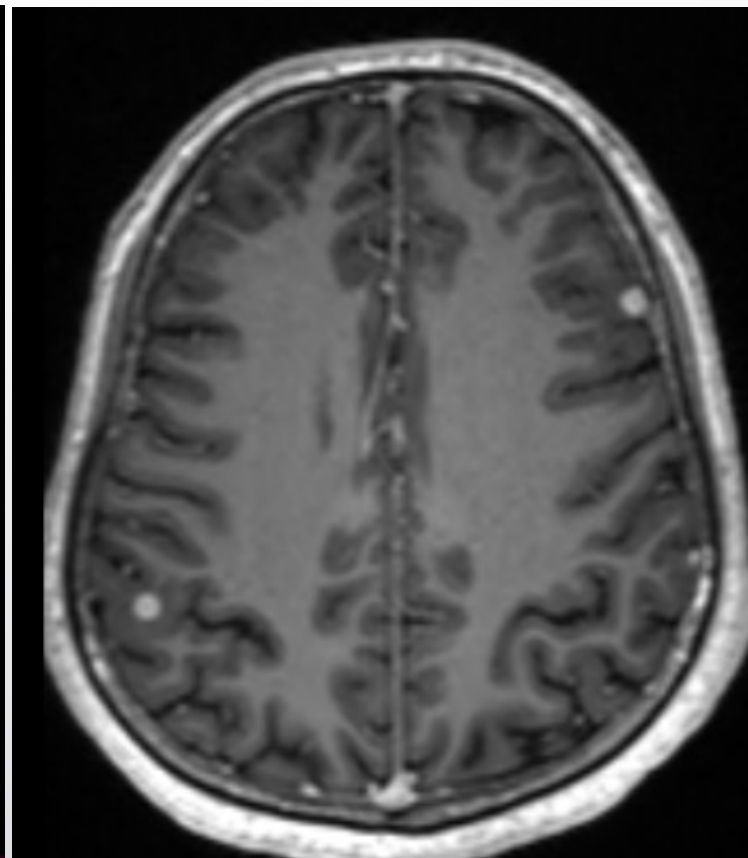
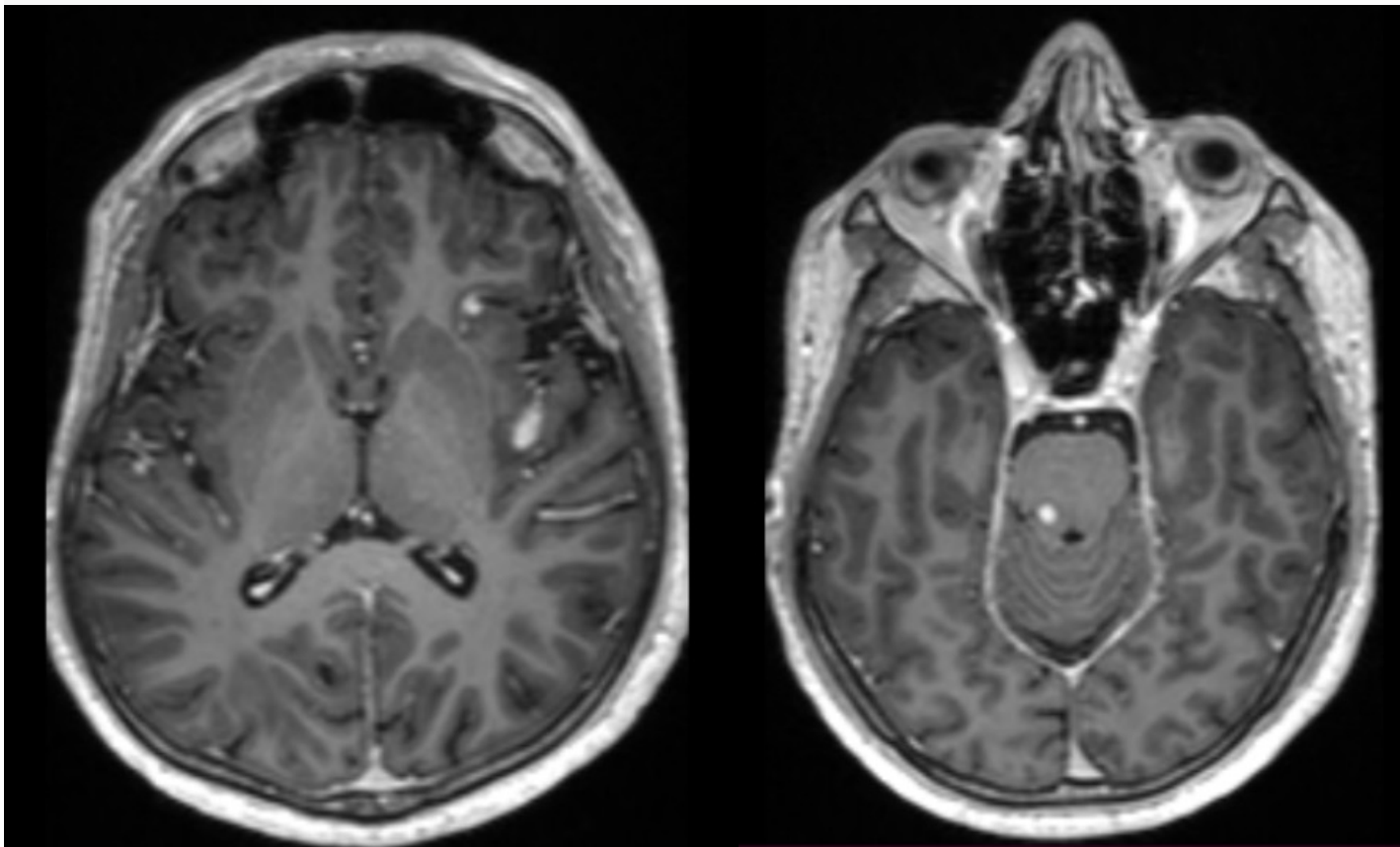


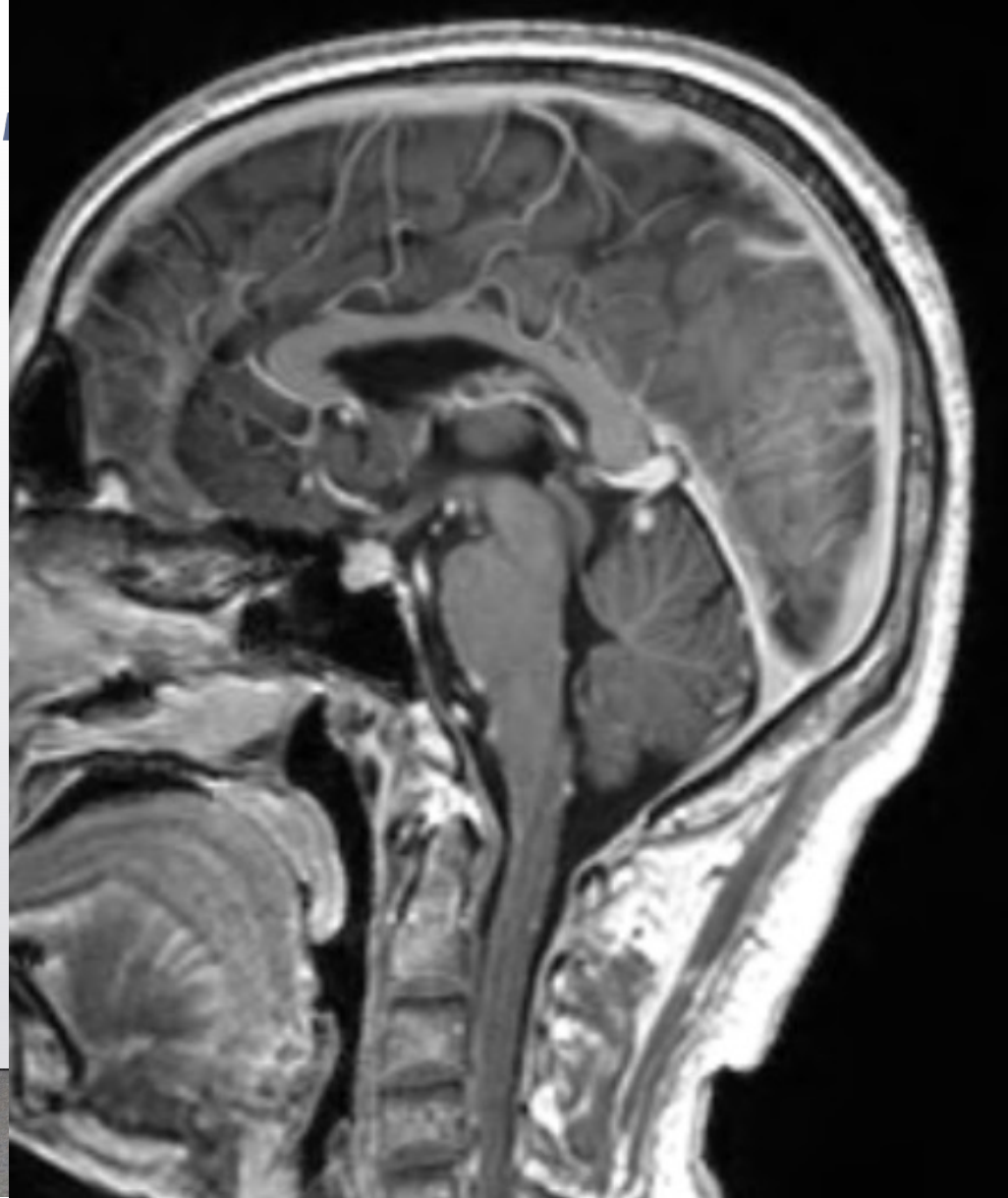
- The patient showed gradual improvement in the symptoms for the next two weeks until he again presented with worsening of weakness of both lower limbs, loss of sensation and urinary continence.
- On examination, the patient had flaccid paraplegia with plantar withdrawal.
- The patient was started on antitubercular therapy and advised a repeated contrast enhanced MRI for the brain & spine.











FINDINGS



- Nodular leptomeningeal enhancement along the cervical spine.
 - Mass like enhancing intradural extramedullary lesions involving the spinal cord extending from the C1 to L5 vertebral body levels resulting in severe compression of the spinal cord.
 - Longitudinally extensive T2 cord hyperintensities involving the spinal cord extending from C7 to D6 vertebral body level- representing transverse myelitis.
 - Enhancement of the nerve roots- suggestive of radiculitis.
 - There is evidence of bony erosions with enhancing T2 & STIR hyperintense lesions within the right iliac blade and sacral ala.
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- Nodular leptomeningeal enhancement along the basal cisterns.
 - Pachymeningeal enhancement along the cerebellar foliae.
 - Multiple ring/nodular enhancing lesions in the cortical and subcortical regions of the fronto-parieto- temporal lobes, vermis, midbrain and cerebellar lobes.
 - Enhancing soft tissue lesion in the pituitary gland with suprasellar extension not involving the pituitary stalk with mild indentation on the optic chiasm.

POSSIBLE DIFFERENTIAL DIAGNOSIS



NEUROSARCOIDOSIS

- Pachymeningeal and leptomeningeal involvement.
- Pituitary gland involvement
- Parenchymal involvement (representing extension of leptomeningeal disease via perivascular spaces)
- Longitudinally extensive transverse myelitis

CNS TUBERCULOSIS

- Multiple ring enhancing lesions
- Leptomeningeal involvement.
- Pachymeningitis: rare yet possible.
- Pituitary tuberculosis is rare although possible.
- Longitudinally extensive tuberculous transverse myelitis is rare however has been reported.



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THANK YOU