



Rare Cause of Acute Paraplegia: Post-Tuberculosis Syrxinx

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Clinical image description

A 36-year-old patient, treated for tuberculous spondylodiscitis 7 years ago, has presented to the neurological emergency room for a tetraplegia with progressive development for two months, a cerebral-medullary MRI was performed urgently revealed the presence of an hypersignal T2 and diffuse contrast enhancement of the cervico-dorsal cord, with development of syringomyelic cavities downstream in the dorso-lumbar cord. He was treated with prednisolone but no improvement.

clinically the story developed firstly by an acute meningitis followed by a symptom-free interval, which may be years; finally, a rapid and steady paraparesis. Myelopathy developing after tuberculosis infection may be due to granulomatous arachnoiditis, syringomyelia or cord compression. The chronic course of arachnoiditis in our case was the cause of cavities.

Syringomyelia and arachnoiditis following tuberculosis meningitis is rare, especially the extracanalicular syringomyelia, where a cyst forms primarily in the spinal cord parenchyma. Exact pathogenesis of syrinx formation in tuberculous meningitis is not known, it may be formed when the tuberculous endarteritis produces a softening of the parenchyma of the spinal cord causing severe scar lesions reducing the compliance of the subarachnoid space, hence the passage of CSF in the medullary parenchyma through the perivascular spaces. The MRI objectify the cavities which are sometimes multifocal, to assess the state of the marrow and potential arachnoiditis surrounding. Spinal tuberculous arachnoiditis could result in serious and permanent neurological deficit.



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Figure 1: Sagittal slices of medullary MRI in T2 sequence: Image A: Signal abnormality of the cervico-dorsal cord in diffuse T2 hypersignal, extending over more than 3 vertebrae in length, associated with diffuse arachnoid thickening, and dilation of the ependymal canal covering the length of the lumbar and cervical marrow with syringomyelic cavities of the dorso-lumbar marrow (Image: B).



Figure 2: Sagittal sections of medullary MRI in T1 sequence (Image A) and T1 sequence in fat saturation and with injection of gadolinium (Images B and C), showing abnormalities in the signal of the cervico-dorsal cord in T1 isosignal (Image A), with diffuse contrast enhancement and individualization of syringomyelic cavities of the dorsolumbar spine in hypointense (Images B and C).

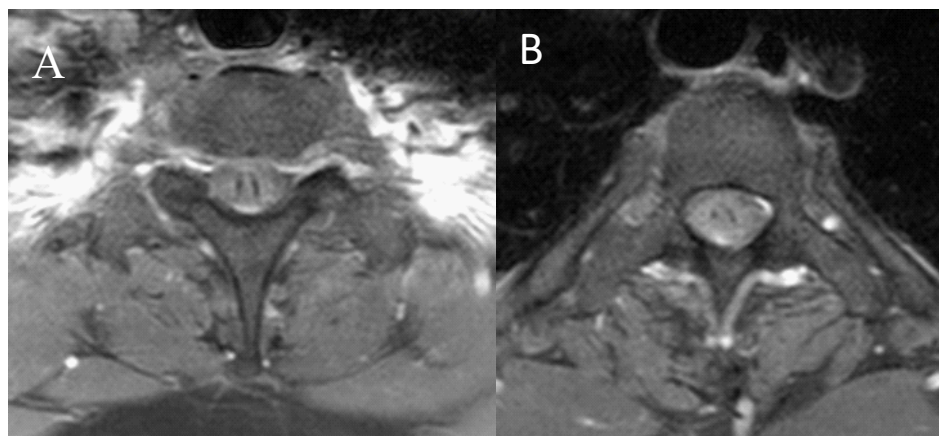


Figure 3: Axial MRI section of the cervico-dorsal spine in T1 sequence with fat saturation and injection of gadolinium (section A: Cervical level, section B: Dorsal level) showing a heterogeneous aspect of the marrow with medullary contrast enhancement and arachnoid, involving the whole marrow in width. It is associated with the individualization of extra-canalicular syringomyelic cavities (white arrow).