Multiple Tuberculoma Involving the Brain and Spinal Cord in a Patient with Miliary Pulmonary Tuberculosis

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A 54 year old male patient who had been previously followed for miliary tuberculosis consulted in our clinic with weakness and loss of sensation in his legs. In his neurological examination, both of his lower extremities showed loss of strength by 2/5th, distal hypoesthesia starting from T10, bilateral Babinski positivity and bilaterally hyperactive deep tendon reflexes in the lower extremities. Cranial and spinal magnetic resonance images (MRI) were acquired to investigate the etiology of paraparesis. In his MRI volumes, both cerebral hemispheres and cerebellum, pons and T2 and T10 showed contrast-defined nodular lesions. In his T2-weighted images, intramedullary signal changes were seen between T7 and T12. The patient was given lumbar puncture. There were no cells in his cerebrospinal fluid; Gram staining showed gram-negative coccobacilli. Cerebrospinal fluid protein was found to be 66 mg/dl, glucose 58 mg/dl, simultaneous blood sugar 140 mg/dl and microbacteria PCR was found to be positive. Quadruple anti-tbc therapy was continued and he was given high-dose intravenous methylprednisolone for seven days because of the possibility of intramedullary tuberculoma due to myelitis. A clear improvement in his lower body strength and sensation was seen after the treatment. In his control thoracic MRI, the edema effect caused by the lesions were seen to have decreased significantly.

Key words: Brain, spinal cord, tuberculoma

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Figure 1. Multiple nodular structures in both cerebellar hemisphere, with higher contrast especially on the right side as seen in contrast T1-weighted images; a look that is suggestive of tuberculoma.

Figure 2. Contrasting nodular lesion inside the spinal cord at the level of T10 vertebra corpus.
Figure 3. Intramedullary located hyperintense nodular finding at the level of thoracic vertebrae that causes mild expansion as seen in T2-weighted sequence.

Figure 4. Nodular lesion in the right section of pons in T1-weighted sequence with contrast.

Figure 5. Intramedullary located hyperintense nodular lesion that caused mild expansion at the level of T10 as seen in T2-weighted sequence.

Figure 6. A significant improvement was observed in the edema effect of the T10-level intramedullary lesion, shown in the thoracic MRI taken for follow-up on intravenous methylprednisolone treatment.