Intracranial Paradoxical Reaction during Treatment of Kidney Tuberculosis

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A 74-year-old man was admitted with prolonged fever lasting for 6 weeks, fatigue, nausea and vomiting. Abdominal CT and renal radionuclide scans showed a non-functional left kidney and this function loss was thought to be due to multiple calculi, tumor, or infection. The patient underwent nephrectomy and the histology showed granulomas with caseating necrosis. A quadruple anti-tuberculosis treatment was started and the patient was discharged with outpatient control.

On the tenth day of therapy, the patient was admitted to the emergency unit because of confusion, tendency to sleep, urinary and fecal incontinence and deterioration of general condition. Physical examination revealed left facial paralysis and left hemiparesis. A cranial MRI showed multiple solid lesions (Picture 1). A lumbar puncture could not be performed due to the risk of herniation. Because, we could not perform a brain biopsy and the lesions developed soon after the initiation of antituberculosis treatment, the patient was thought to have a paradoxical reaction (PR) of brain tuberculomas rather than a cancer metastasis, or a demyelinating disease, or another neurologic disorder after consultations with neurology and oncology departments. We added steroid therapy (dexamethasone), to the ongoing anti-tuberculosis treatment. At the second month of the treatment, 75% percent of the lesions was resolved on control cranial MRI and the patient was doing well (Picture 2).

PR is defined as worsening of pre-existing TB lesions or the appearance of new TB lesions in patients whose clinic symptoms improved with anti-TB therapy (1). The diagnosis can be confirmed after exclusion of other differential diagnoses such as secondary infections, inadequate therapy, drug resistance, poor compliance or a drug side effect (2). It is not necessary to make a change or discontinue antituberculous treatment and if there is symptomatic involvement, steroids must be added to the ongoing treatment.

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References


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