A Rare Case of Neurocysticercosis with an Isolated Central Nervous System Involvement in Turkey

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Abstract

Neurocysticercosis (NCC) is frequently seen in Latin America, South East Asia and Africa, it is rare in Western Europe and Muslim countries. This case report is found to be valuable for presentation due to isolated CNS involvement of NCC, high cystic lesion load and resistance to the antihelmintic agents. NCC is rare in Muslim countries, it should be considered in differential diagnosis of the patients with cystic lesions in CNS.

Keywords: Neurocysticercosis, antihelmintic agents, multiple cystic lesions

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Neurocysticercosis (NCC) is one of the most frequent central nervous system (CNS) parasitosis worldwide. It is caused by infection with eggs of the tapeworm Taenia solium, found in undercooked pork [1]. Although NCC is frequently seen in Latin America, South East Asia and Africa, it is rare in Western Europe and Muslim countries [1].

A 62-year-old Turkish male patient was admitted to department of neurology with a complaint of amnesia. On his physical examination, the patient was afebrile, fully conscious, oriented but he was complaining of oblivion. Other systemic examination was found to be normal. Cranial MRI was performed and demonstrated multiple cystic lesions in CNS (Figure 1). Serological and diagnostic tests were planned for differential diagnosis of these lesions and amnesia. Anti HIV, VDRL, TPHA, Toxoplasma, HSV and other serological tests were found to be negative. Tuberculosis tests (ARB, TBC PCR) were also negative. Lumbar puncture was carried out but gave no pathological results. Stool, urine samples did not give any pathological results. When we deeply analyzed his history, we learnt that he was a hunter 20 years ago and used to hunt a variety of animals including pigs. He was accustomed to eating pork during the years of hunting. We sent his serum samples for an enzyme linked immune-absorbent assay for cysticercosis antibody. It was found to be positive. After this result, ophthalmologic examination and ocular angiography was performed but no pathological involvement was detected. Muscle CT was also carried out and there was no muscular involvement. Due to his laboratory and MRI findings, albendazole therapy (15 mg/kg/day) was initiated and continued for three weeks. In control MRI after this treatment, the number of the cystic lesions did not decrease. Therefore, we initiated Praziquantel (50 mg/kg) and only a partial regression was observed. We prolonged praziquantel therapy for 2 weeks. However, these cystic lesions did not show any decreasing tendency and only a few of these cysts calcified.

This case report is found to be valuable for presentation due to isolated CNS involvement of NCC, high cystic lesion load and resistance to the antihelmintic agents. In addition, it is important to note that according to best of our knowledge, this case appears to be the one of the few NCC cases which can be counted on the fingers of one hand reported from Turkey.

In conclusion, although NCC is rare in Muslim countries, it should be considered in differential diagnosis of the patients with cystic lesions in CNS.

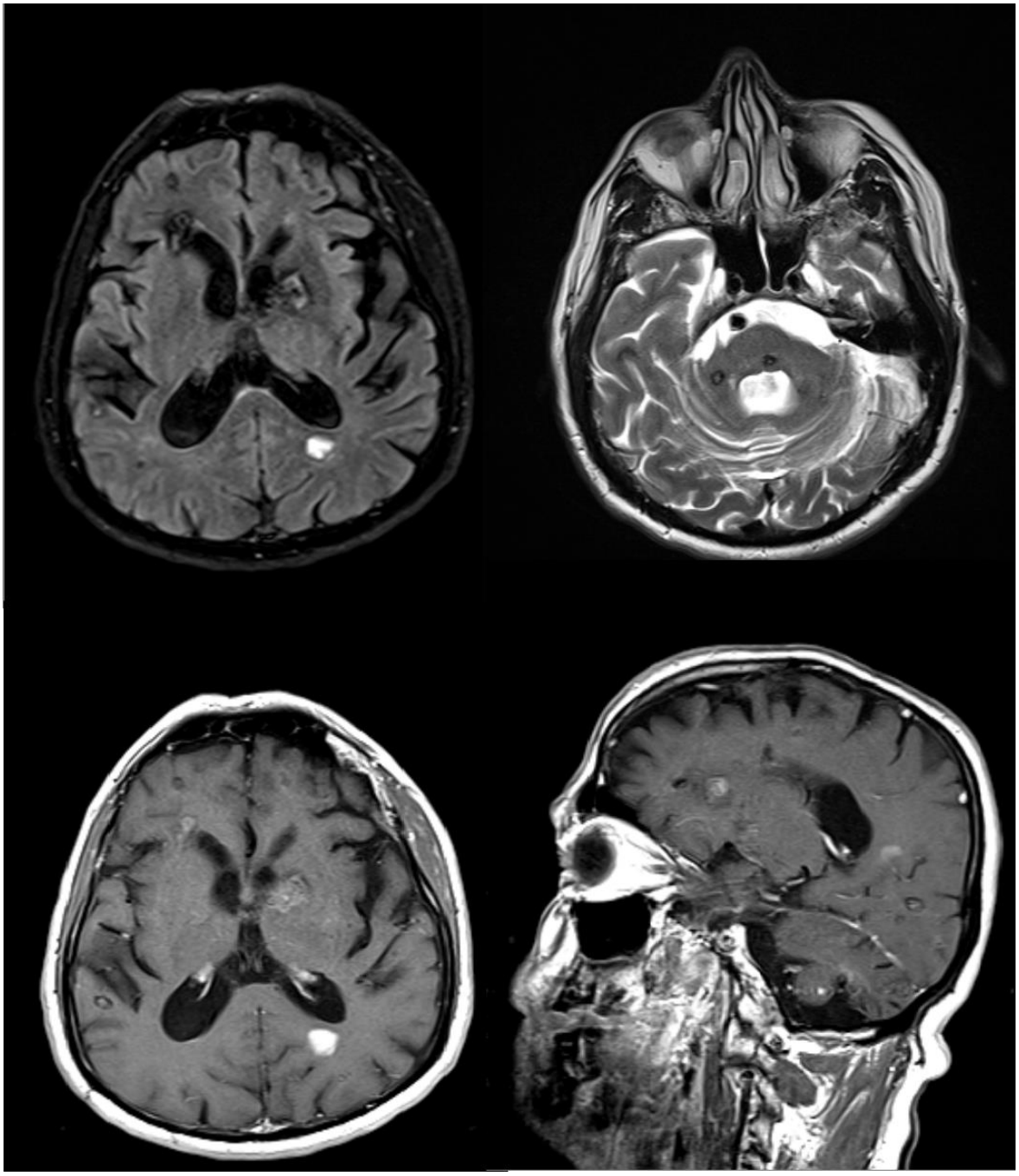

Figure 1: MRI of brain showing hyperintens multiple cysts in T2 weighted sequences; in T1 sequences, contrast enhancing multiple (some of them are calcified) neurocysticerci

Reference

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