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## Neurocysticercosis Presenting as Organic Brain Syndrome and Dowry Death - A Case Report

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### Reprints request

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Cysticercosis, a zoonotic disease characterised by diverse clinical features is a major medical problem particularly when the central nervous system is involved. Hitherto, epilepsy has been recognized as a frequent clinical manifestation of neurocysticercosis (NCC). The emphasis in the present paper is on considering the diagnosis of NCC in cases of abnormal behaviour associated with epilepsy in endemic areas. Regrettably it was the social problem of dowry demand and alleged harassment which brought this case to light.

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### Clinical case

A 26 year old Hindu lady was referred to the Psychiatric services of NIMHANS from a peripheral hospital for investigation of abnormal behaviour of sudden onset on a background of seizures of recent onset. Her initial entry to the local hospital was warranted for treatment of multiple burns allegedly inflicted following "dowry demands". However, her psychiatric disturbances prompted a referral to NIMHANS.

The patient was married and a mother of three children. There was not forthcoming evidences of a family history of epilepsy or any psychiatric illness.

A routine examination revealed multiple infected burns on her face and extremities. Neurological examination revealed a dull individual who was withdrawn, non-communicative and not making eye-to-eye contact. With a provisional diagnosis of organic brain syndrome, she was investigated. During her stay, there was a recurrence of tonic-clonic seizures with no motor or sensory deficits. Routine cerebrospinal fluid (CSF) examination revealed mild pleocytosis. Immunological tests were positive for anticysticercal antibodies (a routine practice for all cases of organic brain syndrome under investigation). This result prompted a computerised axial tomography (CAT) scan examination, which revealed numerous diffusely distributed hypodense lesions suggestive of NCC (Figure I). She

remained in a confused state and a sudden turn of events was the development of Pneumonia and Septicemia to which she succumbed.

***.CT scan showing numerous hyperdense cysticercal cysts. Note greater density in the frontal parietal and occipital areas***

The medicolegal implications of the case permitted a complete autopsy. Virtually every organ in the body was studied with cysticercal cysts of various sizes. The brain was oedematous with numerous cysts along the gray matter and deep ganglionic areas. The heart resembled a bunch of grapes with cysts in the pericardial fat and myocardium. The kidneys, liver, pancreas and the lungs also showed numerous cysts. Histopathological examination revealed the characteristic larval form of *Taenia solium* and host response in the form of granulomatous inflammation (Figure II).

***.Low power view of the cysticercal cyst located superficially. Note the thickened meninges on the top with host inflammatory reaction × 60.***

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## Discussion

This communication while highlighting the disseminated nature of cysticercosis attempts to stress on the psychiatric and neurological features.

Gomez Izquierdo reported the first case of NCC in 1901 with clinical features of "melancholy and stupor" and an autopsy revealing disseminated cysts in the heart and brain [1]. In 1949, an organic mental syndrome was described by Stepien and Chorobski [2].

Epilepsy has been frequently associated with NCC [3]. Patients presenting with psychiatric disturbances as the only manifestation of cysticercosis are few in number. Besides, the exact cause and effect relationship between the parasitisation and mental alterations is open to speculation [4]. Some workers believe that the psychiatric symptomatology is not due to a direct effect but rather due to the mechanical alterations in CSF pressure. Though symptomatic measures are undertaken, the availability of specific anticysticercal therapy - praziquantel and albendazole will probably reinforce the conservative treatment. For the patient being reported here, these drugs were an encouraging experience with another similar case thereby offering the possibility of achieving success with drugs. The emphasis in this communication is on considering NCC when all cases of organic brain syndrome are being investigated in tropical countries.

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