



## A Rare Case of Disseminated Cysticercosis

### KEYWORDS

cysticercosis, albendazole.

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**ABSTRACT** *This is the report of a case of disseminated cysticercosis, with simultaneous involvement of the brain, muscles and subcutaneous tissues. Such an extensive involvement of cysticercosis is extremely rare and has been reported less frequently. A 40-year-old male presented with recurrent seizures, headache and multiple subcutaneous nodules all over the body. Ultrasound examination of subcutaneous nodules showed cyst with scolex. CT brain showed small multiple ring enhancing lesions with eccentric calcifications and perilesional edema. MRI showed multiple cysts in different stages in the brain. A larval cyst was seen on microscopic examination of an excised nodule. Serological test for cysticercal antibodies was positive.*

### Introduction:

Human cysticercosis is an important cause of epilepsy and neurological morbidity in many developing countries. Cysts occur especially in striated muscles, subcutaneous tissues, the nervous system and the eye. Central nervous system involvement with *T. solium* cysts, neurocysticercosis, is a pleomorphic disease whose clinical manifestations vary with the number, size, location and stage of cysticerci as well as the intensity of the host's immune response. Common manifestations include epilepsy, focal neurological signs, intracranial hypertension, cognitive decline, cerebellar ataxia, symptoms of hydrocephalus and psychiatric disorders.

A set of diagnostic criteria based on neuroimaging studies, serological tests, clinical presentation and exposure history has been proposed by Del Brutto et al. (2). CT and MRI remain the effective means of diagnosis.

Simultaneous and extensive involvement of the brain, spinal cord, eyes, muscles and subcutaneous tissues is extremely rare and has not been much reported previously in review of literature. This is the report of a case of disseminated cysticercosis from Kurnool, south India.

### Case report:

A 40-year-old male, resident of a village near Athmakur Kurnool district of Andhrapradesh, farmer by profession, presented with history of recurrent seizures for 3 years, headache and swellings all over body for 2 years. There was no history of recurrent fever, chronic cough, chronic diarrhea, weight loss, decreased appetite, joint pain and past history suggestive of diabetes and tuberculosis. On examination, he was afebrile, with normal blood pressure. He has multiple asymptomatic pea-sized subcutaneous nodules all over the body, especially over the trunk, neck and extremities. Neurological examination was normal. Routine laboratory tests were normal. Fundoscopy was normal. Ultrasonography of swellings showed cysts with scolex in chest wall and rectus muscle. CT scan of brain plain and contrast showed multiple small

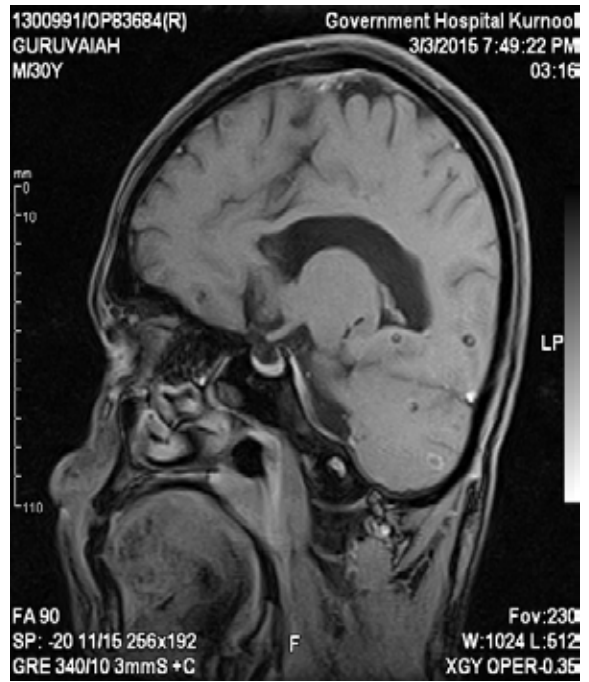
ring-like enhancing lesions with eccentric calcifications and perifocal edema both cerebral hemispheres. On MRI examination, multiple hyperintense lesions and some focal enhancing lesions with surrounding edema were seen in the brain. Microscopic examination from the arm revealed a larval cyst. ELISA for cysticercal antibodies was positive.

The patient was treated with albendazole, steroids and oxcarbamazepine and was discharged after a week. At follow-up after a month, there was marked reduction in the sizes and numbers of subcutaneous nodules and significant resolution of neuroradiological abnormalities with the patient remaining seizure-free.

### DISCUSSION:

This patient has fulfilled the diagnostic criteria for human cysticercosis. Presence of 2 major criteria out of 4 and 1 minor criterion out of four is required for definitive diagnosis as proposed by De Brutto et al. (2), where as this patient has 2 major criteria, intracranial lesions highly suggestive of neurocysticercosis and serum ELISA positive for cysticercosis antibodies, 1 minor criterion of clinical manifestations consistent with neurocysticercosis, 1 epidemiological criterion of resident in endemic area of cysticercosis.

Cerebral cysts usually number 7-10 per patient (3) but these and subcutaneous nodules were innumerable in our patient. A case of human cysticercosis with such extensive dissemination, virtually involving all possible sites like brain, extraocular muscles, muscles and subcutaneous tissues simultaneously is indeed very rare, previously only one case reported (4). This case is thus most unusual.



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