

## Letter to Editor

### Serologic evaluation of brucellosis in patients with psychiatric disorders

Sir

Brucellosis is the most frequent zoonotic infectious disease in the world, affecting more than 500 000 people every year (1, 2). Neurobrucellosis is a rare complication of brucellosis affecting the central and peripheral nervous system and causing serious clinical complications (3-6). Psychosis as a presentation of neurobrucellosis is a rare condition. There were only a few previous reports of brucellar psychosis in the literature (6).

Depression and mental inattention are common symptoms in brucellosis, However, depression is often out of proportion to the severity of other symptoms and is the most frequent psychiatric disturbance in brucellosis (4).

Psychiatric disorders are uncommon in brucellosis, but higher prevalence of brucellosis in endemic countries results in considering brucellosis as an important option in the differential diagnosis of psychiatric symptoms (3). From September 2009 to July 2010, a brucellar serologic test was positive with significant titers in three among 500 hospitalized psychiatric patients versus 2 out of 500 non-psychiatric disorders subjects. All these had Wright test >1:160 and 2ME >1:80. They were treated with anti-brucellar agents and their psychiatric symptoms were resolved. Brucellosis is a multisystem disorder involving almost every organ system with a broad spectrum of clinical manifestations and complications (4). Brucellosis causes serious clinical complications. One of these complications is psychosis which has been reported in literature as case reports (3). In one study, twenty-seven patients with brucellosis were compared with 50 healthy matched controls. Overt or apparent neurological manifestation was recorded in 14 (51.9%) and the remaining 13 (48.2%) patients with brucellosis had no apparent neuropsychiatric involvement. Depression was recorded in 7 (29.2%) patients. (5).

In another study, two psychiatrists interviewed the patients with neurobrucellosis, and performed the hamilton depression rating scale (HDRS) tests and mini mental state examination (MMSE) tests. The documented cognitive and emotional disturbances improved by antibiotic therapy were without any antidepressive or antipsychotic therapy (7).

A study on 400 brucellosis patients in Kuwait showed 6% of the patients developed psychiatric complications with

depression and anxiety predominantly in the chronic stage of the disease. In one study, Brucella DNA in the blood of patients with emotional disorders who did not have acute brucellosis or a diagnosis of chronic brucellosis was detected. Brucella DNA was detected in 3 (15 %) out of 20 patients with emotional disorders, whereas, all controls were found to be negative (8).

In our study, positive serologic tests in patients with findings suspicious of brucellosis are 2 of 500 in non-psychiatric patients and 3 of 500 in new diagnosed psychiatric patients without findings are suspicious of brucellosis. Even with rarity of this complication, the higher prevalence of brucellosis in community results in considering brucellosis as an important option in differential diagnosis in psychiatric symptoms. Our observation emphasizes those psychiatric symptoms in any psychiatric patient, brucellosis should be considered in the differential diagnosis especially in the endemic regions of brucellosis.

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