

Letters to the Editor

A case of vocal tic: an unusual presentation of neurobrucellosis

Sir,

With reference to the interesting case report by Bayhan et al. [1], Turkey has not been able to eradicate brucellosis, which remains a major public health problem although almost a century has gone by since its first description in the country. Despite being endemic, brucellosis remains under-diagnosed and under-reported in Turkey [2]. Being a multi-system disease, brucellosis should be included in the differential diagnosis of any clinical presentation in areas endemic with brucellosis and, therefore, suitable laboratory tests should be done to confirm diagnosis.

The diagnosis of neurobrucellosis in the studied patient by Bayhan et al [1] was considered late, clinically-based and supplemented by only one inconclusive positive laboratory test. This is clear as Bayhan et al. [1] stated in their report that the final diagnosis of neurobrucellosis was established by positive testing for serum brucella IgM, the history of raw milk ingestion and the rapid response to a specific anti-brucella treatment protocol. Surprisingly, other laboratory tests included in the diagnostic algorithm of brucellosis were negative, notably serum rose Bengal test, standard tube

agglutination (STA) test and the brucella Coomb test. I presume that the diagnosis of neurobrucellosis could have been made earlier and conclusively in Bayhan et al's study [1] if they had applied the following conclusive laboratory criteria which have been shown to help early diagnosis of neurobrucellosis and differentiation from other central nervous system involvement in regions endemic with brucellosis [3]. These include the isolation of *Brucella* spp. from cerebrospinal fluid (CSF) and/or CSF STA test $\geq 1/40$, lymphocytic pleocytosis, increased protein in CSF and STA test $\geq 1/320$ in blood [3].

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Professor Mahmood Dhahir Al-Mendalawi, MB, CH.B, DCH, FICMS (Paediatrics)

Department of Paediatrics, Al-Kindy College of Medicine, Baghdad University, Baghdad, Iraq (mdalmendalawi@yahoo.com).

Author response

In areas endemic for *Brucella melitensis*, such as Turkey, children represent 20%–25% of cases [1]. The prevalence and pattern of complications depend on the strain of brucella, the duration of the disease and the age of the patient [2]. Neurobrucellosis is an uncommon complication of paediatric brucellosis and there are few paediatric neurobrucellosis series reported in the English literature [3–6]. Neurobrucellosis in paediatric patients

comprises 3%–10% of all cases reported in the literature [7].

Unusual presentations of paediatric neurobrucellosis have been reported including Guillain–Barré syndrome [8,9], epileptic seizures and aggressive mood, intracranial hypertension [10–12], acute onset of bilateral blindness [13], visual impairment and unilateral hearing loss [14].

We reported a case of vocal tic as an unusual presentation of

neurobrucellosis in an 11-year-old boy [15]. We agree with the comments of Professor Al-Mendalawi regarding the absence of the classical diagnostic findings of neurobrucellosis in the studied patient. However, it has been reported that there are many discrepancies in the diagnostic criteria of neurobrucellosis [11]. We think that this is especially true for paediatric neurobrucellosis. It has been reported that at least 2 serological tests should be combined to avoid

false negative results [16]. Usually, the standard tube agglutination test (SAT) is used for a first screening and complement fixation or Coombs test will confirm its results. As brucella enzyme immunoassays are more sensitive and specific than other serological tests, they may replace them step by step [17]. However, in a study of 17 cases of neurobrucellosis, serum SAT was negative in 23.5% of the patients

and serum Coombs test was negative in 11.7% of the patients. Furthermore, cerebrospinal fluid SAT was negative in 23.5% of the patients and the Coombs test was negative in 17.6% of the patients [18]. In our case, the serum rose Bengal test, SAT and brucella Coombs test of the patient were all negative and the final diagnosis of neurobrucellosis was established by positive testing for serum brucella IgM.

Recently, Kesav et al. reported a case of neurobrucellosis which was diagnosed in the absence of facilities of CSF brucella agglutinin estimation and they emphasized that was because of the need for early diagnosis and treatment of neurobrucellosis [19]. In cases having protean symptoms of neurobrucellosis as our case did, a high index of suspicion for brucellosis is required in patients from endemic areas.

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Gulsum Iclal Bayhan and Gonul Tanir

Department of Paediatric Infectious Diseases, Dr Sami Ulus Maternity and Children's Health and Diseases Training and Research Centre, Ankara, Turkey (Correspondence to G. Tanir: gonultanir58@yahoo.com).

Prehypertension among young adult females in Dammam, Saudi Arabia

Sir,
I found the article entitled "Prehypertension among young adult females in Dammam, Saudi Arabia" quite intriguing and informative [1]. I believe that similar conditions of obesity [2], lipid abnormalities and

blood pressure disorders [3] prevail in the adult female population of Pakistan, leading to cardiovascular and metabolic complications. Keeping in view the magnitude and diversity of the problem [4], the key contributing factors associated with

and contributing to this condition should be analysed, in order to construct an effective intervention by the health care authorities. Awareness regarding unhealthy lifestyles, dietary habits and lack of physical activity should be generated at the

local and international level by organizing conferences highlighting the issue of women's lifestyles and health conduct. A special edition of your prestigious Journal, incorporating reports and studies exploring the issue, may act as a trigger to further discussion and research on the subject.

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Nusrat Bano

Ziauddin College of Pharmacy, Ziauddin University, Karachi, Pakistan (Correspondence to: nusratbano@hotmail.com).