



Neurobrucellosis Mimicking Neurotuberculosis

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To the Editor: Neurobrucellosis is a very rare manifestation of brucellosis with an incidence of <2% of all brucellosis cases, which is often a diagnostic challenge as it mimics neurotuberculosis [1].

An 11-y-old boy from rural South India, presented with persisting fever and headache for more than a month with loss of appetite and weight. On examination, he was hemodynamically stable with signs of meningeal irritation without any focal neurological deficits. Cerebrospinal spinal fluid (CSF) analysis revealed protein – 133 mg/dl, Glucose – 25 mg/dl with corresponding blood sugar of 95 mg/dl, total cell count – 100 cells/cm³, Lymphocytes –99%, Neutrophils –1%. CSF culture and virologica studies were negative. Contrast enhanced computed tomography (CECT) brain showed leptomeningeal enhancement in bilateral temporoparietal regions suggestive of meningitis.

Since, the above findings were highly suggestive of tubercular meningitis, anti tubercular therapy (ATT) was initiated. On Day 5, blood culture grew *Brucella*. Hence ATT was discontinued, and was started on Co-trimoxazole 10 mg/kg/d and Rifampicin 15 mg/kg/d for 6 wk, Gentamycin 5 mg/kg/d during first week for neurobrucellosis. The child responded well to the above treatment and had no neurological deficits at discharge and during third month followup. Repeat CSF study done after 2 wk of therapy was normal and *Brucella* agglutination titer which was positive at diagnosis became negative.

Though rare, meningitis, meningoencephalitis and neuropathy secondary to brucellosis are reported [2, 3]. Blood culture, which is the gold standard for diagnosis, is more likely to yield the organism than the CSF. Neuroimaging is not of much value as it shows nonspecific inflammatory changes [4]. There

is a lack of consensus about antibiotic of choice in neurobrucellosis but a combination of antibiotics (Rifampicin, Co-trimoxazole, Doxycycline) for 6–8 wk, up to 6 mo is advocated to achieve remission. Though, there is a tendency to misdiagnose and treat neurobrucellosis as neurotuberculosis, blood culture and serological tests helped to clinch the diagnosis in our case [5].

A high index of suspicion, positive blood culture and serological tests along with a history of exposure to livestock/raw milk consumption is required for timely diagnosis and prompt treatment of Neurobrucellosis.

Compliance with Ethical Standards

Conflict of Interest None.

References

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