Cryptococal Meningitis Presenting as Acute Cerebellar Syndrome

Dear Sir,

Cryptococcal meningitis is a less common cause of chronic meningitis in immunocompetent individuals. Hereby, we report an interesting case of Cryptococcus gattii meningitis presenting as subacute cerebellar syndrome. A 71-year-old man presented with giddiness and swaying while walking for 3 weeks. The giddiness gradually worsened over 1 week and was later static. There was no vomiting, tinnitus, or blurring of vision. There was holocranial headache, which was moderate in intensity and more in the early morning. He had tremulousness in both hands which was more pronounced on reaching for objects. Three days prior to admission, he had intractable hiccups. There was no history of fever at any point of time. On examination, he was conscious and oriented. Fundi were normal. There was no neck stiffness. Cranial nerve examination was normal. He had bilateral cerebellar signs with impaired tandem walking. He was initially diagnosed as possible cerebellar stroke and antiplatelets were started. Subsequently, MRI brain showed bilateral cerebellar folial enhancement in T1 postcontrast image [Figure 1]. CSF study showed 250 cells/mm^3, 85% lymphocytes with increased protein (123 mg/dl), and low glucose (29 mg/dl). CSF India ink preparation, rapid cryptococcus species capsular antigen detection by lateral flow method, CBNAAT (Gene Xpert), cytology, and bacterial cultures were negative. ELISA for HIV was negative. In view of this, a provisional diagnosis of tubercular meningitis was made, as it was the commonest cause of subacute lymphocytic meningitis in Indian subcontinent. He was empirically started on antitubercular treatment (isoniazid/rifampicin/ethambutol/pyrazinamide) with steroids (dexamethasone). After 10 days of ATT he had improvement in giddiness, but unsteadiness and headache were persistent, Hence, the CSF study was

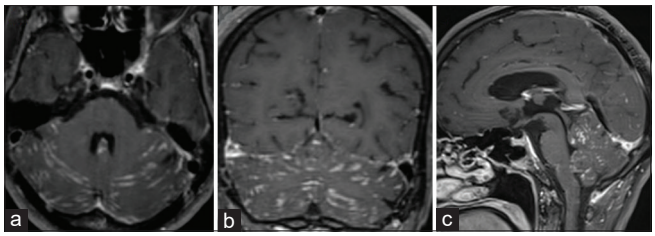

Figure 1: Contrast enhanced T1 weighted MRI showing cerebellar folial enhancement in axial, coronal and sagittal views in A, B, C respectively

repeated, which showed 240 cells/mm^3, 100% lymphocytes with elevated protein (80 mg/dl) and low glucose. The repeat CSF India Ink preparation for Cryptococcus was positive. Fungal culture showed growth of Cryptococcus gattii. A final diagnosis of Cryptococcal meningitis was made. He was started on amphotericin B but developed severe local and systemic reaction. Hence, he was switched over to the alternative regimen of fluconazole with flucytosine. He improved on the same and was discharged after a week. On follow-up at 2 weeks, he improved significantly and was walking well without support.

Cryptococcal meningitis is a common cause of meningitis, especially in immunocompromised subjects. The incidence of this disease has increased in recent decades due to the AIDS pandemic. Among patients with HIV infection, cryptococcal meningitis is the second most common cause of neuro-infection after tuberculosis in the developing countries.[1] However, it can also cause meningitis in the immunocompetent. It presents in general with a typical triad of headache, vomiting, and neck stiffness. The common MRI findings reported in cryptococcal meningitis include leptomeningeal enhancement, dilation of perivascular spaces, military nodules, plexitis, and ventriculits.[2] Diagnosis of this condition is by CSF India ink staining and Cryptococcal antigen (CRAG) assay. CRAG assay by Lateral Flow Assay has more than 99% sensitivity and 99% specificity.[3] First-line treatment consists of amphotericin b (1 mg/kg/day) and flucytosine (100 mg/kg/day) for 2 weeks followed by fluconazole.[4] Advanced age, altered sensorium at presentation, CD4/CD8 <1, and CRAG titre >1:1024 are reported to be associated with poor prognosis in cryptococcal meningitis.[5]

We present this case to highlight an unusual presentation of cryptococcal meningitis. This gentleman had no fever or vomiting. He presented with a subacute cerebellar syndrome which was initially mistaken for a stroke or demyelination. The MRI picture was also unusual as there was enhancement along the cerebellar folia like "sugar-coating appearance" as reported in CNS lymphoma.[6] A similar MRI picture has been reported from Japan in a 71-year-old apparently immunocompetent male with cryptococcal meningitis.[7] The lack of fever, neck stiffness, severe headache, initial CSF negativity for cryptococcal infection, and retro-negative status of the patient made further delay in the diagnosis. In addition, this case highlights the need for repeat CSF testing, when the patient symptoms persist during empirical treatment with ATT in patients with subacute or chronic meningitis. Knowledge about this kind of uncommon presentation will reduce the delay in the diagnosis and treatment, thus improving the outcome.

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Conflicts of interest

There are no conflicts of interest.

Kiren George Koshy, Ravindranadh C. Mundlamuri, Seena Vengalil, Ravi Yadav, Nagarathna S[1], Rose D. Bharath[2], Nalini Atchayaram

Departments of Neurology, [1]Neuromicrobiology, [2]NIIR, NIMHANS, Bengaluru, Karnataka, India

Address for correspondence: Dr. Ravindranadh C. Mundlamuri, Associate Professor, Department of Neurology, NIMHANS, Bengaluru - 560 029, Karnataka, India.
E-mail: mundlamuri.ravi@yahoo.com

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