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Submitted: 12 Oct. 2020
Accepted: 15 Nov. 2020
Published Online: 19 Dec. 2020

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HOW TO CITE THIS ARTICLE: Kar SK, Rai S, Sharma N, Singh A. Student Suicide Linked to NEET Examination in India: A Media Report Analysis Study. *Indian J Psychol Med.* 2021;43(2):183–185.

ACCESS THIS ARTICLE ONLINE
Website: journals.sagepub.com/home/szj
DOI: 10.1177/0253717620978585

Delirium as a Presenting Feature of Myelodysplastic Syndrome in Old Age: A Case Report

Sir,

Delirium is an acute neuropsychiatric condition with multifactorial etiology. Treatment is usually symptomatic till the underlying pathology is corrected. Delirium is a common concern among cancer patients and has been found to be secondary to pain, hypoxia, infection, constipation, altered glycemic control, drug toxicity, and other unidentifiable causes. Delirium is also common with hemato-oncological conditions but has rarely been reported as one of the presenting features.[1] We encountered a unique presentation of delirium in a geriatric patient with myelodysplastic syndrome (MDS) associated with hyponatremia, anemia, hemorrhoids, and hypertension.

Case Report

An 87-years-old temple priest presented with 20 days' history of high-grade fever, poor oral intake, disturbed sleep, decreased socialization, and socially inappropriate behavior in the form of spitting at people, associated with cough and expectoration. On admission to the psychiatry ward, he was found to be confused and disoriented. On serial mental status examination, it was noted that he could not recognize his family members or the place where he was admitted. Routine investigations showed hyponatremia (124 mmol/L) and anemia (9.5 gm %), with normal blood counts of white blood cells (WBC; 8400/mL) and platelets (167,000/mL). He was found to be hypertensive (BP = 160/100 mmHg). Brain magnetic resonance imaging was suggestive of hypertensive encephalopathy. During the course of admission, the patient had double incontinence and two episodes of hypertensive crisis, which were managed with intravenous labetalol. Blood and urine cultures were negative for infection. Sputum samples were negative for tuberculosis (TB). Contrast-enhanced computed tomography (CECT) of the chest showed unclear signs of pulmonary TB, and the patient was started on empirical antituberculosis treatment (isoniazid, rifampicin, pyrazinamide, and ethambutol-HRZE regimen).

Meanwhile, the patient had staring, mutism, and motoric unresponsiveness, which led to a score of 6 on Bush Francis Catatonia Rating Scale. A diagnosis of organic catatonia with delirium was considered, and he was started on intravenous fluids, T. lorazepam 1 mg TID, and T. quetiapine 25 mg HS.

Colonoscopy was done, which showed grade 3 hemorrhoids (external and internal). After treating hyponatremia, dehydration, and fever, he was found to be stable and improving in terms of catatonia and delirium. However, his total WBC counts were raised (17,000/mL). The patient have had a similar episode two years back, lasting a month, and associated

with a WBC count of 20,000/mL, which was not evaluated back then. Considering these facts, bone marrow biopsy was advised. Over a period of three weeks, there was trend of fall of hemoglobin (9.5, 9.2, and 7.3 gm %) and platelets (167,000, 127,000, and 58,000 per mL) while the WBC counts were rising steadily (8,000, 17,000, and 22,000 per mL). Peripheral smear revealed monocytosis with 14% presence of blasts. The patient did not have exposure to radiation or chemotherapy in the past. Mild dyserythropoiesis and megakaryopoiesis with hypercellular marrow on the bone marrow biopsy were indicative of MDS. Further karyotyping was deferred due to the affordability and tolerability concerns of the patient. Quetiapine was stopped to check if MDS was a result of antipsychotic exposure.[2] After one week of stopping quetiapine, the trend continued to remain the same. The patient was discharged on quetiapine 25 mg HS.

Discussion

Around one in six elderly individuals with an unexplained pancytopenia have findings consistent with that of MDS.[3] An earlier study had shown that the mean age of presentation of MDS is 66 years, and the median survival is 59 weeks.[4] The majority of these patients die because of unidentified MDS and missing etiologies of varied clinical presentation.[4] An earlier case report has also described the development of delirium in patients with promyelocytic leukemia while under induction therapy.[5] Falls, insomnia, and weakness are common presenting features of MDS due to the development of pancytopenia, but no literature exists on different presentations of delirium in hematological malignancies. In this context, our case report appears to be the first one describing delirium as a presenting feature of MDS.

The treatment of delirium involves multicomponent nonpharmacological strategies along with an effective use of a low dose of antipsychotics to control agitation and aggression.[6] Treatment of MDS is a complex evolving consensus based on cost-benefit assessment of several factors.[7] Treatment in our case was deferred in view of age (87 years), associated comorbidities (hypertension, hemorrhoids, etc.), and the patient's ability to manage self-care. Findings from a recent study revealed that delirium secondary to non-respiratory infections are reversible, while factors such as dehydration, organic damage to the central nervous system, and hypoxia are associated with a prolonged course of delirium among hospitalized cancer patients.[8] Though multiple factors were involved in the presentation of our case, including hemorrhoids, hypertensive encephalopathy, hyponatremia, and MDS, it is very difficult to pinpoint the exact etiology of delirium. Multifactorial delirium is known to occur in this age group, but MDS as one of the causes of delirium appears unique in contrast to other factors studied so far.

The case clearly highlights the importance of screening all geriatric patients presenting to neuropsychiatry clinics for complete blood counts with peripheral smear because a substantial number of them are affected with anemia secondary to micronutrient deficiencies as well as MDS.[9] It is worthwhile to advise a bone marrow biopsy in suspected geriatric cases with abnormal trends in the blood counts. This case also supports the evidence-based routine screening of organic factors in geriatric patients presenting with psychiatric syndromes. Attempts are being made to develop biomarkers, which could help us to detect underlying specific causative factors involved in a delirium of multifactorial etiology[10] and catch them early.

Declaration of Conflicting Interests

The authors declare that there are no conflicts of interests regarding this study.

Funding

The authors received no financial support for the research, authorship, and/or publication of this article.

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Submitted: 5 Mar. 2020
Accepted: 13 Apr. 2020
Published Online: 7 Jul. 2020

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HOW TO CITE THIS ARTICLE: Sutar R, Niranjana J. Delirium as a presenting feature of myelodysplastic syndrome in old age: A case report. *Indian J Psychol Med.* 2021;43(2):185–186

ACCESS THIS ARTICLE ONLINE
Website: journals.sagepub.com/home/szj
DOI: 10.1177/0253717620928249