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A CASE OF PROGRESSIVE MULTIFOCAL LEUKOENCEPHALOPATHY IN HIV POSITIVE FEMALE

General Medicine

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ABSTRACT

We Report A Case Of Hiv Positive Female Having Jc(john Cunningham Virus) Virus Positive Progressive Multifocal Leukoencephalopathy. A 40 Year Old Female Patient Had C/o Subacute-onset Weakness Of Right Half Of Body And Deviation Of Mouth To The Left Side For 2 Weeks. There Was No History Of Sensory Loss. There Was No History Of Seizures, Fever, Vomiting, Headache, Head Injury, Jaundice, And Ear Discharge. Patient Came Hiv Positive By Elisa And In Further Work Up Patient Was Diagnosed With Jc Virus Induced Progressive Multifocal Leukoencephalopathy Which Is Rarely Reported In Indian Literature.

KEYWORDS

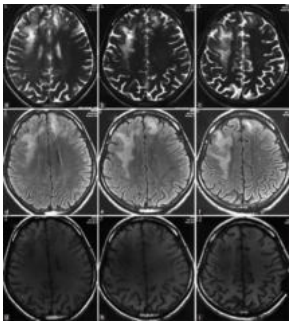
INTRODUCTION

Jc(john cunningham virus) virus is a rare viral infection commonly occuring in immunosuppressed individual like hiv/aids. It is a etiologic agent of progressive multifocal leukoencephalopathy which is a fatal demyelinating disease of central nervous system. Pml is a disease of the white matter of the brain. Pml is most common among individuals with hiv-1 infection / acquired immune deficiency syndrome (aids). Studies estimate that prior to effective antiretroviral therapy, as many as 5 % of persons infected with hiv-1 eventually develop pml that is an aids-defining illness. However, current hiv therapy using antiretroviral drugs (art). Allows as many as half of all hiv-pml patients to survive. The most prominent symptoms are clumsiness; progressive weakness; and visual, speech, and sometimes personality changes. The progression of deficits leads to life-threatening disability and death.

CASE

A 40 year old female patient admitted in medical ward had c/o subacute-onset weakness of right half of body and deviation of mouth to the left side for 2 weeks. There was no history of sensory loss. There was no history of seizures, fever, vomiting, headache, head injury, jaundice, and ear discharge. Patient had no past history of respiratory and cardiovascular illness. Elisa for hiv-1 came positive. Vital signs showed a temperature of 98f , a pulse rate of 102/min, an arterial blood pressure of 118/78 mmhg ,a respiratory rate of 18 breaths/min and patient was conscious,not oriented to place and occasionally following verbal command.right sided power was 3/5.rest of the examination was normal.

Mri brain was s/o large confluent t2 hyperintensity involving left high frontoparietal white matter, left temporal white matter, and right frontal white matter. Lesions were hypointense on t1-weighted image. Lumbar puncture was to detect jc virus. Csf sample rt pcr came positive for jc viral dna and 0 cells. Elisa for hiv-1 was positive. Absolute cd4 count was 108 cells/µicro ml. Laboratory reports were suggestive of microcytic hypochromic anaemia, normal wbc and platelet count, normal chest xray, sputum afb negative.as per clinically impression and laboratory data we have treated with antiretroviral therapy(tenofovir + dolutegravir + lamivudine and prophylaxis for opportunistic infection.



CONCLUSION

Jc virus-related pml should always be suspected in a hiv patient who presents with sudden progressive neurologic manifestations and lesions in white matter on mri brain scan. Awareness of this entity and early diagnosis are essential considering the extremely poor prognosis. Since the onset of aids epidemic in 1980, the incidence of pml has increased significantly and now hiv-associated cases account for up to 87% of all cases of pml. Pml has been estimated to affect 6% of patients with hiv infection. India has over 6 million people living with hiv/aids at present. The expected incidence of pml in indian hiv-infected population should be significantly large. However, pml is uncommon in india. The neurologic signs and symptoms of pml result from the viral destruction of the myelin-producing oligodendrocytes in the cns. The main pathologic features are atypical astrocytes with enlarged multilobulated nuclei and intranuclear inclusion in oligodendrocytes which are jc virus particles on in situ hybridization. Etiological diagnosis of pml usually relies first on the detection of jcv dna in csf by pcr. Among hiv-1-infected, combined art untreated patients with neurological diseases; the diagnostic sensitivity of this technique was of 72%–92% and specificity of 90%–100%. Thus, a positive result is regarded as diagnostic in the appropriate clinical context. Because the rate of jcv dna detection increases with progression of pml, lumbar puncture is usually repeated if the initial pcr analysis is negative, but suspicion remains high. When efforts to detect jcv dna in the csf fails, brain biopsy is required to achieve an etiological diagnosis of pml.

Disclosure statement

Appropriate written informed consent was obtained for Publication of this case report and accompanying images.

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