Case Report

Neurocognitive impairment secondary to herpes simplex encephalitis improved with inject cerebrolysin

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ABSTRACT

Herpes simplex encephalitis (HSE) is an acute illness that causes both general and focal signs of cerebral dysfunction We present herewith the case of a 33 years old female who presented with neurocognitive impairment that was secondary to the herpes simplex encephalitis. The patient's case is discussed as the patient bettered with the administration of injection cerebrolysin along with psychopharmacotherapy and cognitive exercises.

Key words: herpes simplex encephalitis, secondary neurocognitive impairment, cerebrolysin.

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INTRODUCTION

Herpes simplex encephalitis (HSE) is an acute (or may be a subacute) illness that causes both general and focal signs of cerebral dysfunction. The brain infection in HSE is thought to occur by means of direct neuronal transmission of the virus from a peripheral site to the brain via the trigeminal or olfactory nerve. The exact pathogenesis is unclear, and factors that precipitate HSE are unknown. Administration of acyclovir has reduced the mortality rates of Herpes simplex encephalitis but research shows that 20%-30% of patients have succumbed to death due to severe neurological deficit [1-3].

CASE REPORT

A 33-year old female, Marathi speaking, Hindu by religion, educated up to 9th standard, married for 9 years, housewife, resident of Sion was brought to the OPD at Lokmanya Tilak Municipal General Hospital, with chief complaints of forgetfulness, not identifying family members, not understanding the place and time and also not capable of self-care. The complaints had begun 40 days prior to visiting us. Forty days back she had fever which was on and off, mild grade for which treated by general practitioner. But 2 days later, she had one episode of generalised tonic-clonic seizure characterised by clenching of teeth, up-rolling of eyeballs, unconsciousness following which patient was admitted to medical ward of our hospital. On investigating, M.R.I. Brain revealed ill-defined hyper intensity area in left hippocampus, amygdyla, left anterior temporal lobe, hypothalamus, left insular and anterior cingular cortex on FLAIR and T2 weighted images suggestive of early herpes encephalitis. DNA detection by real time PCR was positive for HSV1. She was started on acyclovir and was in hospital for 15 days. Her condition was same, only fever subsided and did not have

further seizures. But still she had disorientation in time, place and person. She was incontinent for urine and stools thus needed diaper round the clock. She was unable to identify family members. At home too, she remained the same. She would forget what she ate, would brush multiple times, forget that she had bathed and had forgotten how to do household chores. She would occasionally have sadness of mood, crying spells, thinking what had happened to her and she had become dependent on family members. Thus, she was brought back to the OPD.

There was no history of suspiciousness or hearing voices inaudible to others or any symptoms of psychiatric illness in past. She had no other medical or surgical illness. MMSE score on our 1st day evaluation was 18/30. We diagnosed her as having neurocognitive impairment following encephalitis. We started her on injection cerebrolysin 10ml daily in 100ml normal saline as slow Intravenous infusion over 2 hours. Apart from this, we added tablet escitalopram 10mg and donepezil 5mg and memantine 5mg. Also, cognitive exercises were advised by occupational therapy department. She started showing improvements gradually after 7th to 8th injection and after 12th injection there was about 60% improvement. She stopped urinating and defecating in clothes and self-care improved.

After 20 injections, the husband perceived more than 80% improvement and she had started doing household chores to some extent. MMSE score was 27/30 after 20 injections. Sadness of mood had also reduced.

DISCUSSION

HSE is a debilitating disorder that may have far reaching neurological complications and disability as its sequelae [4]. Cerebrolysin has been used in the management of dementia by us and described to be effective in a case series [5]. We have also used the drug in the management of traumatic brain injury [6], encephalitis [7] and extrapontine myelinosis [8]. This is the first case to the best of our knowledge where improvement in HSE was reported to cerebrolysin. Clinicians must be aware of the molecule and use the same in the long term management of HSE.

REFERENCES

1. Levitz RE. Herpes simplex encephalitis: a review. Heart & Lung 1998;27(3):209-12.
2. Whitley RJ. Herpes simplex encephalitis: adolescents and adults. Antiviral Res 2006;71(2-3):141-8.
3. Whitley RJ. Herpes simplex virus infections of the central nervous system. A review. Am J Med 1988;85(2A):61-7.
4. Whitley RJ, Lakeman F. Herpes simplex virus infections of the central nervous system: therapeutic and diagnostic considerations. Clin Infect Dis 1995;20(2):414-20.
5. Phirke M, Desousa A, Shah N, Sonavane S, Bharati A. The use of cerebroprotein hydrolysate in dementia: A case series of 25 cases seen in a tertiary general hospital. J Geriatr Ment Health 2014;1(2):106-9.
6. Karia S, Mahajan PT, Shah N, Sonavane S, De Sousa A. Cerebroprotein hydrolysate in traumatic brain injury. Elective Medicine Journal 2013;2(1):34-5.
7. Phirke M, Bharati A, De Sousa A, Sonavane S, Shah N. Cerebroprotein hydrolysate in the management of vascular dementia – a case report. Int J Pharmacol Clin Sci 2014;3:75-8.
8. Karia S, Majlikar R, De Sousa A, Shah N. Cerebroprotein Hyodrolysate in Extra-Pontine Myelinosis–A Case Report. International Journal of Scientific and Research Publication 2014;4(1):1-2.

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