RESEARCH PAPER | Medical Science | Volume : 4 | Issue : 6 | June 2014 | ISSN - 2249-555X

Cerebroprotein Induced Fever and Skin Eruption : A Case Report

KEYWORDS: cerebroproteinhydrolysate, dementia, fever, skin rash.

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ABSTRACT *Cerebroproteinhydrolysate made up of neurotrophic factors is being considered as a crucial therapeutic strategy for neurological disorders such as dementia or stroke. It has no side effects usually but there are some reports of drug sensitivity or flu like reactions with it. Here we report a case of mixed dementia where cerebroproteinhydrolysate was found to cause fever and skin eruption.*

Introduction
The word dementia comes from the Latin demens meaning ‹without a mind›.1 Dementia which is characterized by loss of or decline in memory and other cognitive abilities is caused by various diseases and conditions that result in damaged brain cells.2 There are several forms of dementia, Alzheimer's disease being the most common, and vascular dementia the second most common form.3 It is characterized by development of multiple cognitive deficits manifested by both memory impairments and cognitive disturbances like aphasia, apraxia, agnosia and disturbances in executive functioning.4 Dementia has a significant impact on the quality of life of the sufferer and a very distressing effect on friends and family.5

Alzheimer's disease (AD) is a progressive neurodegenerative disorder and is one of most prevalent diseases of the elde rly.6Cerebroproteinhydrolysate is a neurotrophicpeptidergic mixture produced by standardized enzymatic breakdown of lipid-free porcine brain proteins.7 It has unique neurotrophic activity that enhances neurogenesis, neuronal survival, provides neuromodulatory action, increases neuronal plasticity and neuronal repair and has neuroimmunotrophic actions.8 It has demonstrated significant improvements in clinical global impression, cognitive performance and on level of activities of daily living in patients suffering from Alzheimer's and vascular dementia.9-10 For treatment of dementia we have no other drugs available which acts at neuronal level. However some patients may be sensitive to the drug and develop fever and skin reactions to it. Here we report a case of dementia that developed skin rash and fever with cerebroprotein.

Case Report
An 82 year old male educated upto 5th std, who used to work in his shop but not working since last 7-8years presented to the psychiatry outpatient department at our hospital with chief complaints of irrelevant talks, reduced sleep, altered behavior, decreased self care and forgetfulness since the past 10 months. The patient was alright a year back when he started with the complaints of forgetting names, forgetting is things here and there. Since last 7-8 months the patient deterioratedand started showing the symptoms of suspiciousness that people want to steal his money and want to kill him. There was increased irritability and would be angry and stubborn. He would also mutter to self and that people are against him and want to still his money. he started to shout, not listening to the family members. There was reduced sleep, decreased sleep and psychomotor agitation with impaired orientation that was reported.There was no history of depressive, manic and obsessive compulsive features. No significant past or family history of similar complaints.His MRI Brain revealed generalized cerebral atrophy predominantly temporal with multiple infarcts thereby showing a mixed dementia picture. On mental status examination patient was disoriented to time, place and person andwas non cooperative. A formal mental status examination could not be conducted and the Mini Mental Status Examination (MMSE) score on admission was 6/30. The patient was diagnosed as dementia in delirium and was put on Olanzapine 5mg, Donepezil 10mg orally. He showed no improvement in symptoms. Hence informed consent was taken and he was started with Cerebroproteinwhich is cerebroproteinhydrolysate 50mg in 100 ml normal saline and given intravenously over the period of 6 hours on a daily basisfor 7 days following which patient showed improvement and his MMSE score went up to 15/30. After the 8th injection, the patient developed fever upto 101'F and skin rash which was maculopapular. Skin reference was sought and a diagnosis of drug induced rash was given. The patient was put on topical steroids and oral antihistaminics and showed a resolution of rash in 6 days. When cerebroprotein was restarted a similar rash re-appeared in the evening. Thus further cerebroprotein therapy was stopped. The rash was treated and resolved with the same treatment prescribed earlier.

Discussion
For treatment of dementia we have very few medical options in form of acetylcholinesterase inhibitors like donepezil and N-methyl-D-aspartate (NMDA) receptor blockers such as memantine. Cerebroproteinhydrolysate provides us with an option for improvement in activities of daily living in such patients which would be a great relief for care givers. However individual response to the drug is varied along with chances of allergies. Further rigorous controlled safety and efficacy studies across various populations are needed.

Volume : 4 | Issue : 6 | June 2014 | ISSN - 2249-555X

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