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Dengue encephalitis

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Abstract

We file a case of dengue fever with functions of encephalitis. The prognosis of dengue turned into showed by way of the serum antibodies to dengue and the presence of a dengue antigen inside the cerebrospinal fluid. This patient had function magnetic resonance imaging mind findings, specifically related to the bilateral thalami, with hemorrhage. Dengue is not in the main a neurotropic virus and encephalopathy is a not unusual locating in Dengue. Hence diverse different etiological possibilities had been taken into consideration before concluding this as a case of Dengue encephalitis. This case explains the importance of thinking about the prognosis of dengue encephalitis in suitable conditions.

Keywords: Bilateral thalamic involvement, dengue encephalitis, dengue fever

Introduction

Four out of every ten people in the world are at risk for dengue virus infection ^[1]. The features of infection range from an asymptomatic state to a severe hemorrhagic disorder with multisystem involvement. Encephalopathy and neurologic complications are well reported but poorly understood. Increasing evidence suggests that encephalopathy may result from direct viral infection of the central nervous system. This review examines the place of encephalitis in the clinical spectrum of dengue infection.

The serotypes, most frequently implicated in causing neurological manifestation are DEN2 and DEN3 ^[2-4]. The spectrum of clinical manifestation classified in to 3 categories based on pathogenesis

1. Neurotropic effect of virus
2. Systemic complication of infection like encephalopathy, stroke, hypokalemic paralysis
3. Post infectious complications ADEM.

Case Report

4 year old male child, C/O of loose stools, vomiting, fever since 5 days. 2 episodes of tonic posturing in PICU Gen. Examination, HR=125/min, RR=29/min, BP=80/40, peripheral pulse = feeble SPO₂= 91%. Patient was conscious but not oriented to time place person.

Systemic Examination

- CNS – conscious but not oriented, no other significant abnormality, no neck stiffness
- RS – within normal limits
- P/A – within normal limits
- CVS – within normal limits

Investigations

Haemogram

- HB = 8.7
- TLC =4200;
- DLC: P=65%, L=25%, E=03%, M =7;
- PLATELET COUNT 30,000
- PCV 25.3
- Sr NA 132
- Sr K 3.0

- Dengue Ns1 Positive
- Mri – Leptomeningial Enhancement Present
- Lumbar Puncture –

20 Lymphocytes

Sugar -78

Protein 16.0

Dengue IGM Positive

Elisa for viral markers

Mechanism of pathology of encephalopathy i.e. inflammation of brain as a result of direct viral invasion or due to non-encephalitic mechanisms like oedema, cerebral hypo perfusion, hemorrhage hypernatremia ^[5,6].

Discussion

Dengue viruses are single stranded RNA arbovirus and members of the family Flaviviridae ^[6]. Infection by any of the 4 serological types of dengue viruses causes dengue fever and dengue hemorrhagic fever which represents and increasingly important public health ^[7].

Conclusion

Patient was treated for dengue shock syndrome, fluid resuscitation done and inotropes were started and for convulsions anti-epileptics were started patient stayed for 7 days in PICU and discharged with full neurological recovery which was also seen in past studies ^[8,9].

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