

Answer to Medical Quiz: Images

1. T2 Magnetic resonance imaging (MRI) of the brain is showing symmetric signal hyper intensity in the Midbrain and Pons (fig 1). Axial fluid attenuation recovery (FLAIR) MRI image is showing symmetric abnormal hyper intensity in the midbrain.
2. Viral encephalitis.
3. CSF study for biochemistry, cytology and PCR for HSV-1 and HSV-2.

Viral encephalitis involving brainstem

Encephalitis limited to the brain stem is a rare presentation of herpes simplex encephalitis—although cranial nerve signs are noted in 32% of cases of herpes simplex encephalitis, this is more often the result of raised intracranial pressure than of direct viral invasion of the brain stem.¹ Also, herpes simplex virus brain stem encephalitis confirmed by MRI or necropsy histology usually shows involvement of cerebral cortex.^{2,3} Most reports of herpesvirus brain stem encephalitis do not distinguish between HSV-1 and HSV-2.

The more severe the primary HSV-2 infection the more likely and frequent are recurrent episodes of

disease.^{4,5} In view of this, thorough treatment of encephalitis caused by primary HSV-2 infection is essential. The well established and universally accepted treatment for herpes simplex encephalitis is intravenous aciclovir (10 mg/kg every eight hours) for 10 to 14 days.^{6,7}

References

1. Whitley RJ, Soong S, Linneman C, *et al.* Herpes simplex encephalitis. *JAMA* 1982; 247:317–20.
2. Dayan AD, Goody W, Harrison MJG, *et al.* Brain stem encephalitis caused by Herpesvirus hominis. *BMJ* 1972; IV: 405–6.
3. Chu K, Kang D, Lee J, *et al.* Atypical brainstem encephalitis caused by herpes simplex virus 2. *Arch Neurol* 2002; 59: 460–63.
4. Corey L, Adams HG, Brown ZA, *et al.* Genital herpes simplex virus infections: clinical manifestations, course, and complications. *Ann Intern Med* 1983; 98:958–72.
5. Langenberg AGM, Corey L, Ashley R, *et al.* A prospective study of new infections with herpes simplex virus type 1 and 2. *N Eng J Med* 1999; 341:1432–8.
6. Skoldenberg B, Forsgren M, Alestig K, *et al.* Acyclovir versus vidarabine in herpes simplex encephalitis. *Lancet* 1984; ii: 707–11.
7. Whitley RJ, Alford CA, Hirsch MS, *et al.* Vidarabine versus aciclovir therapy in herpes simplex encephalitis. *N Engl J Med* 1986; 314:144–9.