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Images

Acute retinal necrosis in a neonate with HSV II encephalitis☆

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1. Acute retinal necrosis in a neonate with HSV II encephalitis

A 23-day-old term neonate was admitted with fever and seizure for 1 day. On examination, he was febrile and irritable. He also showed a bulging fontanel, nuchal rigidity, and the absence of skin lesions. Infection of the central nervous system was suspected. Examination of cerebrospinal fluid (CSF) revealed a nuclear cell count of 360×10^6/l, with 76% of mononuclear cells, and a protein content of 1062 mg/l. PCR results of herpes simplex virus 2 (HSV II) DNA in both serum and CSF were positive. The child was diagnosed with HSV II encephalitis. Cerebral MRI revealed scattered lesions with equal intensity on T2-weighted images (Fig. 1A and B). Electroencephalogram (EEG) showed severe background slowing with multifocal epileptiform abnormalities (Fig. 1C). Immediately, a fundus view was performed, which revealed retinal necrosis in both eyes (Fig. 1D and E). Treatment with intravenous acyclovir was started, followed by intravitreal ranibizumab injection. The seizure was controlled quickly, although repeated MRI showed multiple encephalomalacia and cerebral atrophy (Supplementary Fig. S1A, B), and EEG revealed wide low voltage restraint (Supplementary Fig. S1C). A fundus view performed after 2 months showed healed lesions with scar formation at the periphery (Supplementary Fig. S1D, E). Oral acyclovir was administered for an additional 6 months.[1] The ocular status remained stable, and the PCR results of HSV II were negative even after withdrawing oral acyclovir. There was no more seizure, and the child was able to raise his head steadily. The visual evoked potential was normal, and he had no difficulty in following light.

Neonatal HSV infection has been reported to result in high mortality and disability rates.[1] There has been much focus on HSV encephalitis as it is a serious and often fatal condition. Nevertheless, ocular manifestations and retinal evaluation of these infants have been reported

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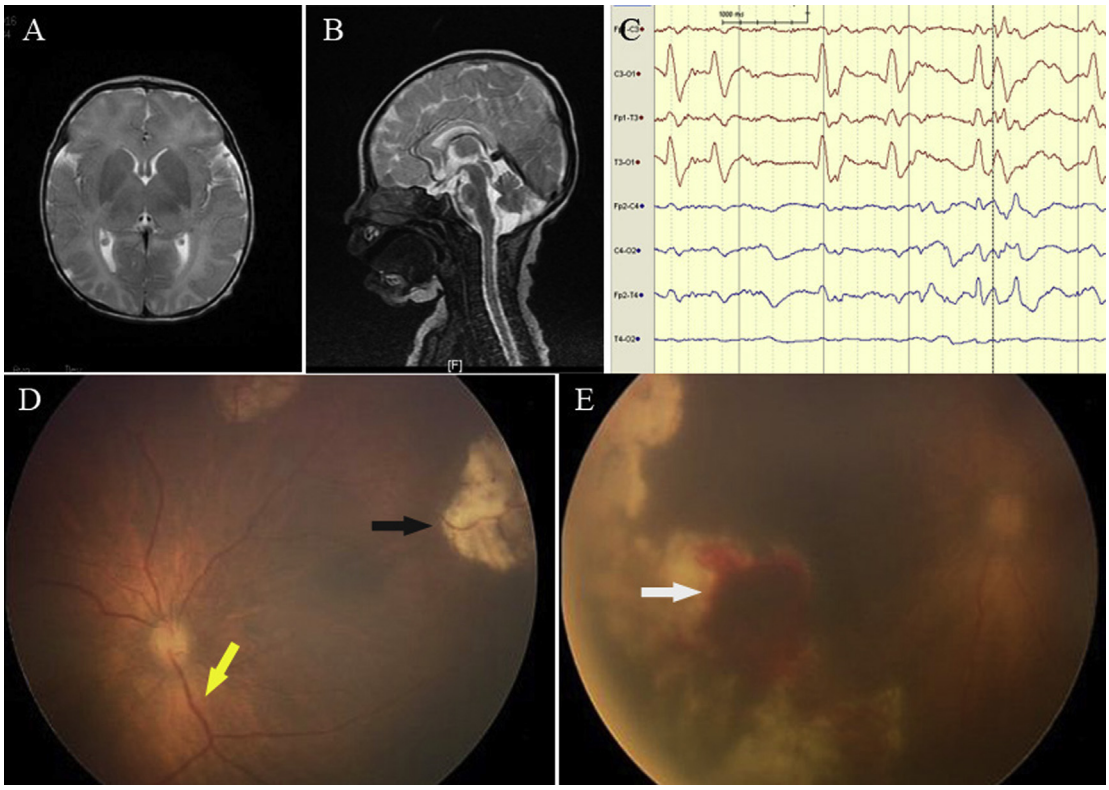

Figure 1 A,B. Diffused lesions with equal intensity in the regions of occipital, parietal, and temporal lobes and around bilateral ventricles were observed in T2-weighted MRI. C. EEG revealed multifocal epileptiform abnormalities. D,E. Fundus photography at initial presentation showed confluent white areas of necrosis at the periphery (black arrow), with hemorrhages (white arrow) and possible vasculitis (vascular dilatation and tortuosity; yellow arrow) (D: right eye, E: left eye).

rarely, and the management of neonatal ocular lesions is also less often reported.[2,3] We have described the present case to emphasize the importance of ocular evaluation and immediate treatment in neonates with HSV encephalitis.

Conflicts of interest

All the authors listed have approved the manuscript and report no conflicts of interest.

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The ethics approval is applicable. The name of the ethics committee is Guangdong Women and Children Hospital Ethics committee. The committee's reference number is 201601079.

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Appendix A. Supplementary data

Supplementary data related to this article can be found at https://doi.org/10.1016/j.pedneo.2018.06.001.