

NEONATAL HERPES SIMPLEX VIRUS (HSV) INFECTION ASSOCIATED WITH OCULAR MANIFESTATIONS: CASE REPORT

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PURPOSE

To describe the features of a neonatal herpes simplex virus (HSV) infection in a premature newborn.

METHODS

Data were collected from a review of the infant's medical record from October 2022 to January 2023 at a hospital in Fortaleza, Brazil.

RESULTS

Preterm infant, born at 32 weeks and 2 days, with birth weight 2.092g and Apgar scoring 6/8 at 1 and 5 minutes, respectively. On admission, the mother had a VDRL of 1:1 and the newborn was hospitalized with a presumed syphilis infection. Later, the infant went to the intensive care unit due to abdominal distension and respiratory distress.

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Then, papulopustular lesions appeared on the back and chest, as well as hyperemic lesions on the left nostril and mouth.

Figure 1: Papulopustular lesions



An ophthalmological assessment was requested, revealing hemorrhage and retinopathy of prematurity in the right eye (RE).

The left eye (LE) had corneal edema and opacification. Thereby, the suspicion of HSV infection was brought up and empirical treatment with oral acyclovir was initiated. Later, a new exam detected hyperemia, palpebral edema, and a fluorescein-stain corneal lesion in the LE, suggesting panuveitis. Fundoscopy showed diffusely pigmented areas in the RE.

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Afterward, serum IgM and IgG antibodies to HSV were positive, and intravenous acyclovir was started.

Figure 2: Fundoscopy with peripheral pigmentation indicating retinal necrosis (RE)

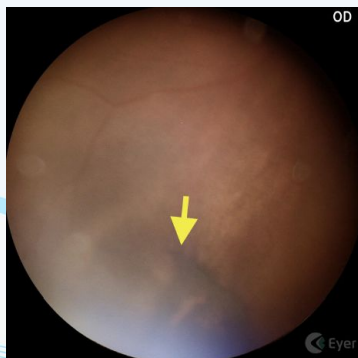
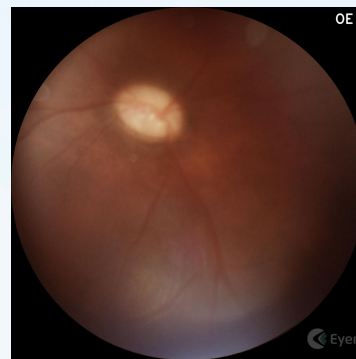


Figure 3: Fundoscopy of the left eye after the treatment, demonstrating opacification



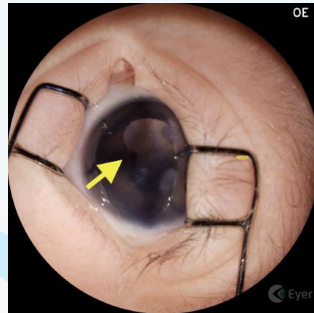
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Cranial computed tomography revealed calcification areas and hypoxic-ischemic encephalopathy. A new ophthalmologic exam verified extensive retinal necrosis in the RE, and

corneal leukoma and posterior synechiae in the LE. Proper antiviral therapy led to an improvement of the condition.

Figures 4 and 5: Extensive corneal opacity, with the presence of irregular, shallow ulcers with dense infiltrate, affecting mainly the upper paracentral and peripheral regions. Fluorescein staining throughout its extension



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DISCUSSION

Neonatal HSV infection is rare and associated with severe morbimortality. The most important risk factor is a maternal infection at the time of delivery, though this fact is often unknown. In neonates, the presentation can be as mucocutaneous lesions, neurologic impairment, or disseminated infection. Our report aims to highlight the role of ophthalmologic evaluation in the diagnosis of neonatal infections.

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