

Infantile Herpes Zoster After Intrauterine Exposure to Varicella Infection

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Figure 1. Herpes zoster



Figure 2. Dermatomal vesicular eruption of herpes zoster

Herpes zoster as a reactivated phase of chickenpox is very rare in infancy due to the protective effect of the maternal immunity against the virus.^{1,2} Overall rate of zoster is 3.40 cases per 1000 persons. The lowest incidence is less than 10 years old (0.74/1000) per year. The earliest age reported is in a 3-month old infant.³

Herein we present a 3 month-old otherwise healthy boy with herpes zoster who acquired primary infection in uterus from his mother. This male infant was delivered by means of normal vaginal after 37 weeks' gestation with 3500g weighed and 42 cm height. His 21-year-old mother (gravida 1, para 1) had been exposed to varicella zoster virus (VZV) during week 24 from her brother and sister with no history of getting VZV immunoglobulin. Patient presented to our outpatient department with a 4-day history of grouped vesicular eruption and was not associated with fever and irritability. Physical examination

revealed a healthy excess crying child with unilateral, grouped fluid-filled vesicular eruption in a band or dermatomal distribution involving the left upper back; the vesicles progressed to involve the left upper abdomen (**Figure 1 and 2**).

Our patient's diagnosis was confirmed by Tzanck smear. It demonstrated acantolytic keratinocytes with homogenous pale chromatin of nucleus, some with eosinophilic inclusion body surrounded by a halo (Ballon cells).

The patient was followed and advised to hygiene of the skin. The lesions were resolved without scarring.

Although the primary varicella infection is usually acquired in childhood and reactivation of virus usually is seen in elderly, it can also occur in infancy followed by reactivation of primary varicella infection acquired in uterus or in early infancy.^{2,4}

Importantly childhood manifestation is not different and characterized by painful vesicular eruption in a dermatomal distribution of sensory nerves as a result of reactivation of latent herpes zoster virus in posterior root ganglia.²

Young children often show fever, lymphadenopathy and pain in the involved dermatoma followed by the characteristic cutaneous lesions, which might involve contiguous dermatomas.² Unlike the majority of cases of childhood zoster occurs in girls and after the age of 5 years², our case was a 3 months boy.

The incidence of varicella infection in uterus secondary to maternal varicella during pregnancy is about 24 percent and just 50 percent of these show symptoms.² Notably infants have either been exposed in uterus or shortly after birth by different prognosis.⁵

Basically, infantile zoster is benign but if the exposure and infection develop in late pregnancy or perinatal period it may lead to a severe and life-threatening varicella-like disease or zoster in early childhood.² The clinical differential diagnosis of herpes zoster is herpes simplex infection and immune bullous diseases.⁶ It

should be pointed out, although infantile zoster is self-limited with short course, it may herald an immunocompromised state or malignancy which should not be overlooked.²

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