Kingdom recommend continued CRP testing with other laboratory investigations when evaluating febrile neonates.  

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Should a 6-week-old infant exposed to chickenpox in a sibling receive varicella-zoster immune globulin (VZIG) or acyclovir?

Evidence-Based Answer

In an otherwise healthy 6-week-old infant exposed to chickenpox, the use of acyclovir or varicella-zoster immune globulin (VZIG) is not recommended, even though acyclovir does decrease the chance of infection (SOR: C, expert opinion).

A small RCT (from 1993) of 50 infants and children (4 months to 9 years of age) evaluated the use of acyclovir or placebo for the prevention of varicella after household exposure. The group treated with acyclovir received 40 or 80 mg/kg daily in 4 divided doses. Treatment was started on day 7 to 9 after exposure to the index case and continued for a total of 7 days. All subjects were examined approximately 14 days after index case exposure.

In the placebo group, all patients showed clinical signs of varicella; 25 (100%) developed a vesicular rash and 17 (68%) developed fever. Varicella developed in 4 of the 25 subjects (16%) receiving acyclovir (P<.01 compared with placebo) and only 1 reported fever. The severity of the skin rash was also less severe in the acyclovir group compared with the placebo group. The study’s authors concluded that varicella can be prevented or modified by administration of oral acyclovir late in the incubation period.

Nevertheless, according to a 2009 statement by the American Academy of Pediatrics (AAP) on infectious disease, VariZIG (which replaced VZIG) and acyclovir are indicated only for a select group of patients if “significant exposure” has occurred. Significant exposure includes face-to-face indoor play and infants residing in the same household as a person deemed contagious. Contact should be nontransient—some experts say at least 5 minutes while others require at least 60 minutes. Candidates for treatment who meet exposure criteria include the following:

- immunocompromised children without history of varicella or varicella immunization
- pregnant women without evidence of immunity
- a newborn infant whose mother had onset of chickenpox within 5 days before delivery or within 48 hours after delivery
- a hospitalized preterm infant (≥28 weeks) whose mother lacks a reliable history of chickenpox or serologic evidence of protection against varicella
- a hospitalized preterm infant (≤28 weeks’ gestation or birth weight ≤1,000 g), regardless of maternal history of varicella virus serostatus

The AAP states that VariZIG should be administered as soon as possible and no later than 96 hours after exposure. There is no recommendation to use VariZIG or acyclovir in healthy term infants exposed to varicella.

In 2007, the Centers for Disease Control published the Advisory Committee on Immunization Practices’ recommendations for the use of VariZIG for postexposure prophylaxis for chickenpox. VariZIG was not recommended for normal-term infants exposed postnatally, even if their mothers had no prior history of varicella immunity. The authors stated that the risk of severe disease did not seem to be higher in this group than in other children.

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