

Anaphylactic Shock Due to Cow's Milk Allergy in the Neonatal Period

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Dear Editor:

WE WISH TO REPORT A CASE of anaphylactic shock in a neonate after intake of cow's milk-based formula. The infant was a 38-week-gestational age neonate with a prenatal diagnosis of holoprosencephaly. Her birth weight, height, and head circumference were 2,760 g (10th percentile), 50 cm (50–70th percentile), and 32 cm (3–10th percentile), respectively. Initial physical examination was remarkable for the presence of hypotonia, relative microcephaly, and mild respiratory distress. Postnatal cranial magnetic resonance imaging confirmed a diagnosis of holoprosencephaly.

Initially she was exclusively breastfed. Postnatally she developed polyuria and hypernatremic dehydration secondary to diabetes insipidus and was treated successfully with vasopressin. On postnatal Day 16 she developed urticaria and shock after the initial feeding of a cow's milk-based formula. She was treated with intravenous adrenalin, antihistaminics, and dexamethasone and nebulized salbutamol (albuterol) and recovered fully. The infant was subsequently exclusively fed breastmilk, and the mother was placed on a cow's milk-free diet. Of note is that the mother had a history of atopic dermatitis.

Anaphylaxis related to cow's milk or cow's milk-based formula milk is a rare event.^{1,2} Cantani and Micera³ summarized the experience of 143 infants ranging in age from 1 to 8 months diagnosed as having milk allergy, of which nine exhibited anaphylactic shock. Lifschitz et al.⁴ reported a case in a newborn (an 8-day-old infant) of anaphylactic shock due to cow's milk protein following the use of formula. Tarım et al.⁵ reported a 7-week old baby with a history of atopy in his family and who died due to anaphylactic shock after being given partially hydrolyzed formula milk. In this case the patient developed eczema after being given formula milk at the age of 2 weeks. Because the eczema persisted the patient was first given a soy-based formula and then shifted to a partially hydrolyzed formula at 7 weeks of age, when he was

admitted to the hospital with cardiac arrest resulting from anaphylaxis and died 21 hours later.

Thus in infants who have an atopic family history and suggestive symptoms of cow's milk allergy (e.g., colic, persistent emesis and/or diarrhea), the possibility of anaphylaxis to cow's milk should be considered. An exclusive breastmilk diet from a mother on a cow's milk-free diet or amino acid-based formula milk is recommended in these situations.²

References

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