Hypersensitivity to cow`s milk protein in a premature infant manifested with feeding intolerance and hypereosinophilia

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**Background:** Cow`s milk protein hypersensitivity is the most common food hypersensitivity in infants. The current diagnostic approaches include a thorough history taking, skin testing and measuring of serum specific IgE to suspected food, elimination of suspected food and food challenge test. Eosinophilia occurs frequently in premature infants and has been associated with total parenteral nutrition and with cow`s milk protein allergy, a response to foreign antigen presented to body through gastrointestinal tract, airway or intravenous routes.

**Methods:** We reported a premature male infant, with gestational age of 33 weeks and birth-weight of 980 gram, who developed feeding intolerance to premature infant formula since 3 days old. He was treated as necrotizing enterocolitis and was stopped feeding for a few days which showed improving of the symptoms. Then he was started feeding again on 7 days old and had feeding intolerance with increasing of peripheral blood eosinophilia from 440 /mcl to 9,640 /mcl at the age of 26 days.

**Results:** The allergy consultation was appreciated for evaluating the cause of hypereosinophilia. After thoroughly excluding other causes of eosinophilia, the patient was suspected to be allergic to cow`s milk protein. He was changed the feeding to extensively casein-hydrolysated formula. The specific IgE to cow`s milk was done and revealed a value of 7.77 kUA/L with total IgE of 114.3 IU/mL. His symptom of feeding intolerance was improved with a good weight-gaining. The peripheral blood eosinophilia was gradually decreased to 2,220 /mcl within 5 days. One week later, the infant was reintroduced feeding with cow`s milk protein formula for 3 days and developed vomiting, abdominal distention and retention of gastric contents with a striking peripheral blood eosinophilia to 16,592 /mcl. The feeding was changed back to extensively casein-hydrolysated formula and the symptoms of feeding intolerance were improved with decreasing of eosinophil count to 900 /mcl on he age of 60 days and body weight of 2,000 gram.

**Conclusion:** Herein, we report a case of premature infant with feeding intolerance and hypereosinophilia resulted from cow`s milk protein hypersensitivity. Eosinophilia in premature infant may be one response to foreign antigen mediated through gastrointestinal tract resulted in food hypersensitivity.

**Source:**