

COWS MILK ALLERGY - CASE PRESENTATION

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Abstract

Paper aim is to present the case of six months old baby, admitted in Clinic II Pediatrics for agitation, growth impairment.

Key words: milk protein allergy, children, colic.

Background

Cows milk allergy is one of the most common food allergies prevalent during infancy and it can manifest as skin rash, diarrhea, regurgitation or even constipation. Childhood cow's milk allergy is a diagnosis encompassing various syndromes. Antigen-immunoglobulin E (IgE) antibody interaction is classically involved in mast cell degranulation in IgE-mediated food allergy, while non-IgE mediated cow's milk allergy is mostly mediated by cellular mechanisms. The diagnosis of cow's milk allergy largely relies on a good knowledge of the clinical expression of the disease. Considering the multiples possibilities of reaction to cow milk this condition has to be considered as a potential etiology in colic, failure to thrive.

Case presentation

A 6 months old boy was admitted in our clinic for: colic, sleep disorders, poor weight increase (weight below 2 SD). His father had also sleep disorders as a child and frequent migraines as adult. The child was born at 36 gestational age, his birth being precipitated by an accidental trauma; with 2650 g weight and 9 Apgar score.

He received natural alimentation for 1 month and at 2 months after mixed fad with mother milk and a normal milk formula. He had a good neonatal evolution, with growth in weight ~ 1.5 kg in the first month; at 6-8 weeks of age sleep disorders begun with periods of prolonged wakefulness crisis marked by agitation and crying without apparent reason. Also erythematous lesion appeared on the abdomen and face and poor growth weight. He was consulted by a neurology pediatrician who diagnosed spasms in extension, myoclonic seizures and recommended clonazepam. Excepting inconstant amelioration of colic attack no improvement in weight gain. Associating pallor and poor appetite he was directed for pediatric evaluation.

Clinical examination revealed an infant with 6.1 kg weight, 72 cm pale, with a discrete muscular hypotonia, subcutaneous cellular tissue in the lower chest and abdomen; thorax with rickets sign. On heart and lung auscultation examination was normal. Also exam of the gastrointestinal and renal apparatus was normal. Intestinal transit disorders consisted in constipation and occasional regurgitation. Infant was reagent, with normal reflexes

present, frequently crossing legs. Left Babinsky sign was positive.

Laboratory investigations revealed anemia associated with hypoproteemia and sideropenia. Also hypoglobulinemia was documented $\gamma=6,7\%$ with IgA deficiency. Normal liver and renal parameters were registered; biochemical fecal examination was normal, with acceptable digestion assessment.

In evolution, during his admission in the hospital a neurological crisis was observed, with spasms in extension + opisthotonus, lasting about 5 minutes, marked uneasiness, accompanied on the set, followed by deep sleep. In evolution, a generalized erythema rash on the trunk, abdomen, with rapid remission (~ 10 h) ad integrum was observed. Subsequently anamnesis revealed that the rash appeared after cheese (casein) ingestion.

Cow milk allergy was suspected and we found occult blood in the stool. Total serum IgE level was increase (but specific Ig E for beta lactoglobulin or casein was negative).

We considered that the child has an allergy to cow milk proteins (rash associated, colic, anemia), complicated with anemia secondary to hypoproteinemia and hyposideremia associated with malnutrition (IP = 0.8). Milk was replaced with a dietetic formula with intense hydrolyzed proteins and avoidance of any milk products. The diagnosis was sustained by the good evolution of the baby after exclusion of milk, with improvement of clinical status, weight gain (weighing ~ 700 g / 3 weeks).

For differential diagnosis many conditions were considered as follow:

1. Allergic enteropathy (immune mediated type IV) from other allergen-soybean, rice, manifested by malabsorption, weight stagnation, rectal bleeding or occult bleeding and / or diarrhea stools was excluded by the absence of mentioned food allergen.

2. Eosinophilic gastroenteropathy (allergy nonIg E digestive determination) associate malabsorption with weight deficit, vomiting-location at a gastric level, or diarrhea in colitis. Exclusion: no clinical specific sign, biological: without eosinophilia.

3. Autoimmune enteropathy lesions secondary reactions of a type IV-lymphocyte Th1h/LfTs the imbalance, expressed clinically by failure to thrive, malabsorption, accompanied by elements of autoimmunity was excluded, clinical-absence of other autoimmune diseases (thyroid, hepatitis) and normal biological parameters.

4. Coeliac disease (atypical) associate, anemia, occult bleeding and frequently selective IgA deficiency. He was

excluded because the disease onset was before gluten administration, and he gained weight on gluten present diet.

5. Other weight causes of poor growth like digestive malformations, cardiac, renal, chronic infections were excluded clinically and biological.

Dietary therapy of the complications, besides exclusion of milk and milk products, a vitamin supplements (vit.B6, vit D) and minerals (Fe) was necessary.

Monitoring of allergy and complications need assessment of nutritional status, anthropometric parameters every two months and biological control at 6 months.

Particularity of the case was that allergy to cow milk manifested by weight deficit, colic, rash without the classic manifestations of diarrhea or rectal bleeding

Conclusion: Literature shows that most organs can be affected by allergy PLV with various expressions:

1. Gastrointestinal disease: gastroesophageal reflux, eosinophilic gastroenteropathy, colitis, constipation.

2. Respiratory diseases: asthma and allergic rhinitis (6% of asthma-crises triggered by food allergens), hemosiderosis of the lung

3. Skin: atopic dermatitis, multiform erythema, angioedema

4. Systemic diseases:

-anaphylactic shock

-weight stagnation, anemia

We should always keep in mind cow's milk allergy as a possible etiology in many cases.

References

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