Lactose Intolerance in Infants with Gastrointestinal Disturbances

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Abstract

Background

Lactose intolerance (LI) occurs when the body lacks sufficient lactase enzyme, preventing the proper digestion of lactose, a sugar found in milk and dairy products. In contrast, cow's milk protein allergy (CMPA) is an immune system reaction to specific proteins in cow's milk.

Objectives

To determine the prevalence of LI in infants with a positive Cow's Milk-related Symptom Score (CoMiSS), which can lead to misdiagnosis as CMPA, and to elucidate the clinical and laboratory findings in formula-fed infants suspected of having LI and managed with a lactose-free diet

Patients and Methods

A cross-sectional diagnostic study was conducted on thirty infants younger than one year was recruited who presented with GIT symptoms and a CoMiSS of 12 or higher. Patients were evaluated at baseline, 2 weeks after initiating a lactose-free diet, and 2 weeks after reintroduction of lactose. Assessments included anthropometric measurements, CoMiSS, and the Pediatric Quality of Life Inventory (PedsQL).

Results

The mean (SD) age was 4.1±1.83 and ranged between 2 and 10 months. The current study demonstrated a significant reduction in the percentage of patients with a CoMiSS score of 12 or higher, from 100% to 26.7%, following the introduction of a lactose-free diet. Weight z-score, weight-for-length z-score, and MUAC significantly improved at week 2, indicating the effectiveness of the lactose-free regimen. These parameters remained stable between weeks 2 and 4 after rechallenge. Total PedsQL scores increased significantly ($p = 0.006$) after the lactose-free diet and decreased significantly ($p = 0.021$) after rechallenge, suggesting a correlation between symptom severity and quality of life. A negative correlation was observed between CoMiSS scores and both weight z-score and PedsQL.

Conclusion

Approximately three-quarters of patients with GI symptoms and a positive CoMiSS experienced improvement after eliminating lactose. A lactose-free diet had a beneficial impact on anthropometric measurements and quality of life in suspected cases of LI with a positive CoMiSS score. It is advisable to consider LI as a potential diagnosis for patients with GI symptoms and a positive CoMiSS score before attributing symptoms to CMPA.