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FEEDING STRATEGIES AND NUTRITIONAL STATUS OF INFANTS AGED 0–6 MONTHS WITH COW’S MILK ALLERGY (CMPA): A CROSS-SECTIONAL STUDY

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Abstract

Background: Cow’s milk protein allergy (CMPA) is one of the most common food allergies in infancy, affecting growth, nutritional status, and overall health if not properly managed. Dietary elimination of cow’s milk protein is the main treatment approach; however, concerns remain regarding the adequacy of such interventions in supporting optimal infant growth and development. In addition, adherence to dietary management and maternal knowledge may influence clinical and nutritional outcomes.

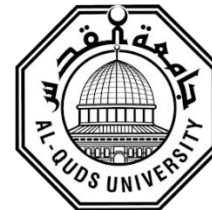
Objectives: This study aimed to assess feeding strategies used in infants with CMPA and to evaluate their association with symptom improvement and nutritional status. Specifically, it examined the relationship between feeding type, adherence to dietary intervention, and outcomes such as symptom response, growth indicators (weight and length), and time to improvement.

Methods: A cross-sectional study was conducted involving 20 mother–infant pairs. Data were collected using a structured questionnaire completed by mothers. Participants were categorized according to feeding strategies, including maternal dietary modification, exclusive breastfeeding, specialized formula feeding, or combinations of these approaches. Statistical analysis was performed using SPSS (version 23). Descriptive statistics were used to summarize the data, while inferential tests (Chi-square, t-test, ANOVA, and Spearman correlation) were applied to examine associations between variables. A p-value < 0.05 was considered statistically significant.

Results: The findings showed a statistically significant association between the type of feeding intervention and symptom improvement ($p = 0.033$). Infants receiving combined feeding strategies (maternal diet modification with breastfeeding and specialized formula) demonstrated the highest rates of symptom improvement, while no improvement was observed in those without intervention. Adherence to dietary management was significantly associated with improvement in infant length ($p = 0.018$), while weight improvement showed a borderline association ($p = 0.059$). Higher adherence levels were generally linked to better nutritional outcomes. Most infants experienced symptom improvement within 1–2 weeks of dietary intervention. Although no statistically significant association was found between adherence and time to improvement, a clinically relevant trend was observed.



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Conclusions: Feeding strategies and adherence to dietary intervention play a critical role in improving clinical symptoms and nutritional outcomes in infants with CMPA. Combined dietary approaches appear to be the most effective in achieving symptom relief. Ensuring proper adherence and providing nutritional guidance are essential to support optimal growth and health outcomes. Further research with larger sample sizes and longitudinal designs is recommended to confirm these findings.

Keywords: Cow's milk protein allergy (CMPA), Feeding strategies, Infant nutrition, Dietary adherence, Hypoallergenic formula, Breastfeeding, Nutritional status, Symptom improvement.