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**PREVALENCE AND PATTERNS OF FOOD ALLERGIES
IN LEBANON**

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Relevance. Investigating the prevalence and patterns of food allergies in Lebanon is critical to enhance detection, increase public awareness, inform healthcare policies, and prevent avoidable allergic reactions, particularly in a setting with unique dietary habits and low allergy recognition.

Aim: to investigate the prevalence and patterns of food allergies in Lebanon identifying common allergens, demographic variations, and clinical manifestations. The findings will provide critical data to improve diagnosis, guide public health strategies, and enhance allergy awareness in a population with diverse dietary exposures and limited existing research.

Materials and methods. A questionnaire-based cross-sectional study was conducted among participants who were Lebanese adults above 18 years old, allergic to food, and diagnosed by a medical doctor (allergist, gastroenterologist, etc.).

Non-medically or self-diagnosed individuals were excluded.

Results and their discussion. The females outnumbered males (81.4% vs. 19.6%). Females suffer more frequently from food-related symptoms than males due to effects of hormones, gender-specific behavior, risk perception, or medication intake. In addition, 62.9% of participants were below 45 years of age, 72.9% held a university degree, 30% had a health-related educational background, and 58.6% lived in the capital, Beirut. In terms of their medical history, 70.7% reported being diagnosed using a blood test (total serum IgE or allergen-specific IgE). Furthermore, 54.4% had their first allergic reaction before the age of 21, 54.3% were diagnosed before the age of 21, and 21.4% had immediate family members diagnosed with food allergies. The top three allergens were wheat, shellfish, and fish. Shrimp was the most reported among shellfish, tuna among fish, eggplant among vegetables, almonds among tree nuts, strawberry among fruits, and pepper among spices. In terms of food allergy reactions, itchy skin and rash were most reported (71.4% and 68.6%, respectively). Within the past year of the survey filling date, 52 (74.3%) participants reported no food allergic reactions, and 67 (95.7%) did not miss any working days due to their food allergy, with only 1 (1.4%) visiting the emergency room. On the other hand, 48 (68.6%) visited the emergency room at least once in their lifetime, and 6 (8.6%) only ever participated in a food allergy treatment.

Available Immunotherapies in Lebanon

-Subcutaneous Immunotherapy (Allergy Shots) Available at American University of Beirut Medical Center (AUBMC) and Saint George Hospital University Medical Center.

-Sublingual Immunotherapy Available at some specialized allergy clinics in Beirut and other urban areas. **Immunotherapies with Limited Availability**

1. Oral Immunotherapy (OIT)

2. Biologics for Allergies: Access may be limited, and not all healthcare facilities may provide this treatment.

3. Nasal Immunotherapy: Generally not available in Lebanon.

Conclusion. In conclusion, food allergies represent a significant public health concern in Lebanon, affecting a notable portion of the population. Key findings indicate that common allergens include nuts, dairy, and seafood, with symptoms ranging from mild to severe, including anaphylaxis. The study also reveals a gender disparity, with females reporting food allergies more frequently than males. Moreover, the lack of comprehensive data and standardized management protocols poses challenges for healthcare professionals and affected individuals. It is crucial to implement educational programs for both the public and medical community to improve recognition and management of food allergies. Future research should focus on longitudinal studies to track trends in food allergies over time and investigate potential environmental and genetic factors contributing to their rise. By addressing these issues, Lebanon can enhance food allergy management and improve the quality of life for those affected.