

## Assessing the role of nutritional immunology in food allergy

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### **Background:**

Nutrition is critical to immune defense and resistance to pathogens, with consequences that affect the health of individual from all aspects. In humans, under-nutrition, notably of protein, is a major contributor to morbidity and mortality due to infectious diseases, particularly in the developing world. Likewise, over-nutrition and its associated metabolic disorders may impair immune function, disrupt the relationship with symbiotic and commensal microbiota, and increase susceptibility to infectious disease. Despite the undoubted importance of nutrition to immune defence, the challenge remains to capture the complexity of this relationship. There are three main aspects to this complexity: (i) nutrition is a complex multi-dimensional problem for hosts, pathogens, and commensals; (ii) host immunity is a complex, multi-dimensional trait; and (iii) nutrition and immunity interact via multiple direct and indirect pathways, including involvement of the host's microbiota.

### **Aim and Objective:**

to assess beliefs and awareness about food allergies and relation to nutritional immunology.

### **Methods:**

A Self designed Questionnaire based on research objectives were administered to public via social media like facebook, twitter, Instagram, snapchart etc in India, Pakistan, and Nepal.

### **Results:**

Analysis of the questionnaire reflected that Food allergy represented a significant health burden at either an individual and population in Nepal, India and Pakistan. Results showed that Care was not being taken to ensure adequate intake of nutrients, particularly in relation to cow's milk allergy. It was also noted that there was an emerging evidence regarding the role of fats, pre-/probiotics, commercial foods, healthy eating, and micronutrients on food allergy.

### **Discussions:**

The prevalence of food allergy in appears to be increasing in both developed and developing countries. The aim of this research was to analyse key factors in the causation of food allergy and its relation to nutrition immunity. Focus was kept on the role of dietary components and nutritional habits in the development and optimal functioning of the immune system. Essential fatty acids, zinc and vitamin D are likely to enhance the anti-inflammatory and antioxidative barrier and promote immunologic tolerance. Additionally, nutritional components such as pre- and probiotics represent a novel research approach in the attempt to induce a tolerogenic immune environment. For all these reasons, the traditional avoidance diet has been, in recent years, completely reconsidered.

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Infectious Diseases****Conclusions:**

New findings on the protective effect of an increased diversity of food introduced in the first year of life on allergic diseases are consistent with the hypothesis that exposure to a variety of food antigens during early life might play a role in the development of immune tolerance. Accordingly, therapeutic and preventive interventions should be planned for the patients. A better understanding of how nutrients and other aspects of food, food patterns and food preparation may affect the immune system and allergy outcomes is required to best advise those at risk of developing food allergies and those with current food allergies.

**Biography**

Dr. Anshoo Agarwal is currently working as Professor & Chairperson at Department of Pathology, Northern Border University, Arar Kingdom of Saudi Arabia. She received her Bachelor of Medicine & Bachelor of Surgery from King George's Medical College Lucknow. Dr. Anshoo Agarwal received her M.D in Pathology from LLRM Medical College

/ Ch. Charan Singh University. She is an Associate professor and Discipline Coordinator in University Technology MARA, Malaysia. Dr. Anshoo Agarwal has served on many scientific memberships like Life member of Indian Association of Pathology and Microbiology, Member of International Academy Pathology, Life member of Indian Society of Hematology & Transfusion Medicine, Emirates Medical Association Pathology Society. Dr. Anshoo Agarwal has more than 80 publications. Dr. Anshoo Agarwal is editorial member of 3 journals and has many reviewed publications. Dr. Anshoo Agarwal research interests include Advance Haematology & Immunohaematology, Breast cancer and Anticancer vaccines.