



A STUDY ON IMPACT OF FOOD ALLERGIES ON NUTRITIONAL STATUS OF PEOPLE

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ABSTRACT

Food Allergy is a problem caused by many people around us. The continuous use of food to which you are allergic may cause the serious health problems. Food allergy is seen in Infant till Old age people. The study was aimed To research on prevalence on food allergy and comparison status by assessing there dietary pattern, their anthropometric measurement and effect of different food allergens. A study was held at different area of Hyderabad and 100 samples were collected were taken. A specific questionnaire was design to collect the data. The collected data was tabulated and analysed using one t-test. The result shows that the p values are significant at p 0.025. The study concluded that consumption of food to which you are allergic should be avoided to keep avoid health issues.

KEYWORDS: Food allergies and nutritional status

INTRODUCTION

FOOD ALLERGY

A food allergy is an abnormal immune response to food. The symptoms of the allergic reaction may range from mild to severe. They may include itchiness, swelling of the tongue, vomiting, diarrhoea, hives, trouble breathing, or low blood pressure. This typically occurs within minutes to several hours of exposure. When the symptoms are severe, it is known as anaphylaxis. A food intolerance and food poisoning are separate conditions, not due to an immune response.

Common foods involved include cow's milk, peanuts, eggs, shellfish, fish, tree nuts, soy, wheat, sesame, rice, and fruit. The common allergies vary depending on the country. Risk factors include a family history of allergies, vitamin D deficiency, obesity, and high levels of cleanliness. Allergies occur when immunoglobulin E (IgE), part of the body's immune system, binds to food molecules. A protein in the food is usually the problem. This triggers the release of inflammatory chemicals such as histamine. [Diagnosis is usually based on a medical history, elimination diet, skin prick test, blood tests for food-specific IgE antibodies, or oral food challenge.

Early exposure to potential allergens may be protective. Management primarily involves avoiding the food in question and having a plan if exposure occurs.[2] This plan may include giving adrenaline (epinephrine) and wearing medical alert jewellery. The benefits of allergen immunotherapy for food allergies is unclear, thus is not recommended as of 2015. Some types of food allergies among children resolve with age, including that to milk, eggs, and soy; while others such as to nuts and shellfish typically do not.

In the developed world, about 4% to 8% of people have at least one food allergy. [They are more common in children than adults and appear to be increasing in frequency. Male children appear to be more commonly affected than females. Some allergies more commonly develop early in life, while others typically develop in later life. In developed countries, more people believe they have food allergies when they actually do not have them.

SIGNS AND SYMPTOMS

Food allergies usually have a fast onset (from seconds to one hour) and may include: Rash

Hives

Itching of mouth, lips, tongue, throat, eyes, skin, or other areas

Swelling (angioedema) of lips, tongue, eyelids, or the whole face

Difficulty swallowing

Runny or congested nose

Hoarse voice

Wheezing and/or shortness of breath

Diarrhoea, abdominal pain, and/or stomach cramps

Light redness

Fainting

Nausea

Vomiting

In some cases, however, onset of symptoms may be delayed for hours. Symptoms can vary. The amount of food needed to trigger a reaction also varies.

Serious danger regarding allergies can begin when the respiratory tract or blood circulation is affected. The former can be indicated through wheezing and cyanosis. Poor blood circulation leads to a weak pulse, pale skin and fainting.

A severe case of an allergic reaction, caused by symptoms affecting the respiratory tract and blood circulation, is called anaphylaxis. When symptoms are related to a drop in blood pressure, the person is said to be in anaphylactic shock. Anaphylaxis occurs when IgE antibodies are involved, and areas of the body that are not in direct contact with the food become affected and show symptoms. Those with asthma or an allergy to peanuts, tree nuts, or seafood are at greater risk for anaphylaxis.

CAUSES

One of the most common food allergies is a sensitivity to peanuts, a member of the bean family. Peanut allergies may be severe, but children with peanut allergies sometimes outgrow them. Tree nuts, including almonds, Brazil nuts, cashews, coconuts, hazelnuts, macadamia nuts, pecans, pistachios, pine nuts, and walnuts, are also common allergens. Sufferers may be sensitive to one particular tree nut or to many different ones. Peanuts and seeds, including sesame seeds and poppy seeds, can be processed to extract oils, but trace amounts of protein may be present, and elicit an allergic reaction.

Patch test

Diagnosis is usually based on a medical history, elimination diet, skin prick test, blood tests for food-1.10
Prevention

Breastfeeding for more than four months may prevent atopic dermatitis, cow's milk allergy, and wheezing in early childhood.[60] Early exposure to potential allergens may be protective. Specifically, early exposure to eggs and peanuts reduces the risk of allergies to these. Guidelines suggest introducing peanuts as early as 4–6 months and include precautionary measures for high-risk infants. The former guidelines, advising delaying the introduction of peanuts, are now[when?] thought to have contributed to the increase in peanut allergy seen recently.[better source needed]

To avoid an allergic reaction, a strict diet can be followed. It is difficult to determine the amount of allergenic food required to elicit a reaction, so complete avoidance should be attempted. In some cases, hypersensitive reactions can be triggered by exposures to allergens through skin contact, inhalation, kissing, participation in sports, blood transfusions, cosmetics, and alcohol.

specific IgE antibodies, or oral food challenge.

OBJECTIVES

AIM -To research on prevalence on food allergies and comparison of nutritional status among population.

OBJECTIVES-

- To assess the anthropometric measurement.
- To assess the diet pattern.
- To know the food allergens, present in it.
- To assess the common food allergens and there impact on body.
- To assess the alternate consumed for various common allergens.

METHODOLOGY

Methodology is a significant part pf any research study, which enables the research to produce a blue print of the research undertaken.

Methodology of present study is discussed under the fallowing heads-

- Research design
- Selection of area
- Size of samples
- Data collection
- Data analysis

RESEARCH DESIGN: Analytical, Design of the study is in the fallowing flow chart.

RESEARCH APPROACH: Case- control study

SELECTION OF AREA: The place of study will be done in 5 different zones of Hyderabad.

SELECTION OF SAMPLE: The 100 samples from general population will be selected for survey.

DURATION OF STUDY: The duration of study will be of one month.

COLLECTION OF DATA: Questionnaire: The questionnaire contains Anthropometric measurements, questions regarding knowledge of symptoms, age, weight, height, type of treatment, how many visit to doctor, alternate foods used, and how long is the allergy lasting.

DATA ANALYSIS: The collected data was analysed statistically by implementing the t-test formula.

The formula for the paired t-test is given by

$$t = \frac{\bar{X} - \mu}{S/\sqrt{n}}$$

Where d: difference per paired value

n: number of samples

SUMMARY AND CONCLUSION

A Food Allergy is abnormal immune response to food. The symptom of the allergy reaction may range from mild to severe. They may include itchiness, swelling, of the tongue, vomiting, diarrhoea, hives, trouble breathing, or low blood pressure. This typically occurs within minutes to several hours of exposure. When the symptom are severe it is known as anaphylaxis. A food intolerance and food poisoning are separate conditions not due to immune response.

Common food involved include cow milk, peanuts, eggs, shellfish, fish, tree nuts, soy, wheat. The common allergies vary depending on the country.

Risk factors include family history of allergies, vitamin D deficiency, obesity, and high level of cleanliness.

The study was Aimed to Assess to research on prevalence of food allergies and comparison of nutritional status among population. A Case control study was carried out on 100 samples. A well-structured questionnaire was used to gather information from cases. The samples were face to face interviewed and some were collected through online means. The questionnaire includes Anthropometric Measurements, Age Diet pattern, Common food allergies, where it effects, and what alternative foods they use. The collected data depicts the following result.

The first aim was to know the BMI of the people and result was over weight was 20%, normal was 69% and the underweight was 11%.

The second aim was to know the diet pattern in which 10% was vegetarian and 90% was non vegetarian.

The Third objective was to know that to which food they are allergic 18% Milk, 16% Nuts, 19% Vegetables, 8.5% Non veg, 13.8% Fruits, 24% Others.

The Fourth objective was to know where causes effects and the result was 35.2% on Hands, 36.3% on Face, 10%

The last objective was to know the alternate foods used and the result was millets 18.2%, almond and coconut milk 36%, animal foods 45%, yogurt 56%, egg yolk 8.5%, and omega 3 supplements were 35%.

CONCLUSION

The collected data was tabulated and analysed statically by paired t-test formula the result shown p value was <0.005 and was significant and it proved alternate hypothesis.