

Table 2 — Age-specific fever episodes and incidence of dengue infection and illness in children, Sri Lanka

| Age (years) | No. children | Fever episodes | | New dengue infections | | | Incidence of infection per 100 children | Incidence of disease per 100 children |
|-------------|--------------|----------------|------------|-----------------------|------------|----------|---|---------------------------------------|
| | | Total | Mean/child | Total | Inapparent | Apparent | | |
| <1 | 51 | 31 | 0.6 | 1 | 0 | 1 | 1.96 | 1.96 |
| 1-3 | 196 | 252 | 1.3 | 27 | 15 | 12 | 13.78 | 6.12 |
| 4-6 | 191 | 174 | 0.9 | 13 | 11 | 2 | 6.81 | 1.05 |
| 7-9 | 225 | 137 | 0.6 | 15 | 6 | 9 | 6.67 | 4.00 |
| 10-12 | 136 | 87 | 0.6 | 11 | 8 | 3 | 8.09 | 2.21 |
| Total | 799 | 681 | 0.9 | 67 | 40 | 27 | 8.39 | 3.38 |

Conclusion

Most estimates of dengue incidence in the region are based on hospital-based studies and nationally reported cases, which grossly underestimate the true burden of disease and infection. As the hospitals take into account the number of patients admitted with lab diagnostics being positive to DenV antigen positivity, many patients are counted out of the national analytics. In the children observed through the given time the 800 children in Colombo, Sri Lanka, and estimated the incidence of infection and disease to be 8.39 and 3.38 cases/100 children, respectively. The ratio of clinically inapparent to apparent infections was 1.48, which indicated that for every apparent infection there were approximately 1.5 inapparent infections in children. This data can now be used fully understand the extend of this infection that has now become a epidemic spreading at rapid a pace. The true burden of dengue fever towards the quality of life of the children their parents and the government in the matter of funding hospital care and maintaining health care plays a big role in todays healthcare especially in urban Sri Lanka. As our study shows the number of infected cases are higher than the previously announced we need to take a step in the right direction towards better prevention from the disease which is water borne. In way of better supervision of places that stagnate water in and around the city which accumulate mosquito breeding whether it be garbage, unused tires, roofs that collect water. Hopefully this study; the results of the study will be useful for designing vaccine trials in southern Asia and for making decisions about how best to introduce vaccines and be used and good epidemiological value towards a better cause.

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FOOD ALLERGIES IN CHILDREN AND THEIR GROWTH DEVELOPMENT

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Introduction

From all types of autoimmune system diseases, the most common is allergic diseases. Even from allergic diseases food allergies take a huge place in the world. Chil-

dren are mostly affected by food allergies due to their first experiences. Avoiding main food groups due to allergic reactions can affect child's overall health and development.

Goal

Providing adequate information to the parents about child's need of nutritional support and importance of self-discipline regarding food that child takes throughout his life.

Material and methods of research

The articles about recent studies which demonstrate the most common food allergies in children in NSCID, WEBMD, PubMed, Medline, EMBASE and the Web of science. Furthermore, has information about complications come after food allergies in children from a journal of Mayo Clinic.

Results and discussion

Food allergy is an autoimmune response of the body to a certain food. Allergic symptoms mostly occurred in the second intake of food. Food allergy is mostly mediated by antibody IgE, which is produced by mast cells and basophils. These antibodies react with food and release histamines which cause allergic reactions such as hives, shortness of breathing, asthma, itching, stomach pains. These reactions can be more dangerous after developing in to an anaphylactic reaction involve in multiple organs. This can lead in to hypotension, respiratory collapse and possible death [1].

Elimination diets from main food groups increases the risk for poor growth in children. To identify the problem of growth factors, measurements of height, weight, body mass index for age were used. All the data regarding the type of food allergy and their eliminated food and the replacement for eliminated food is collected [2, 3].

According to surveys, children are mainly allergic to hen's eggs, cow's milk, peanut, soybean, wheat, buck wheat, sesame including major food groups such as vegetables, meat, fruits, fish [4]. According to the data based on Oral food challenges, European countries are more prevalence in food allergies in children and there is a rapid increase of food allergy cases found in developing countries. Most of food allergy cases are diagnosed by parents and paediatricians. Paediatricians are most likely to direct the child to an allergist where they can diagnose and treat the child according to their food allergy. Most commonly using a blood test, skin prick test, specific IgE testing takes place. If the history of the patient is suggesting non IgE mediated allergic reaction parents are advised to reintroduce the food allergen after eliminating for 2 to 6 weeks [5]. Severe allergic reactions such as anaphylaxis are treated as an emergency and normally these children are prescribed with epinephrine at any given time. Parents and adults around the child should be educated on emergency management of allergic reaction.

Children with food allergies are in high risk of having problems in growth and development due to lack of nutrition. Studies have shown that these children are most likely to be underweight, undernourished, over weight and expected lower height for age [3, 5]. They are most often diagnosed as rickets, iron deficiency, kwashiorkor and greater risk of having a chronic disease [5]. Most often paediatrician himself and child nutritionist recommend a diet with avoidance of allergen food and food complementing the nutritional support. Elimination diets should have adequate supply of macronutrients. Some parents are advised to provide breast milk as a substitute diet for these children. There are some cases that further developed in to serious due to inadequate supplementation of micronutrients such as Vitamin deficiency. Most commonly rickets in children comes as a result of vitamin D deficiency. Loss of mineral density has caused bone defect in children. Children with food allergies often experience with food avoidance, anxiety of eating food and symptoms of feeding dysfunction [1, 3].

The most common reason for problems in growth is due to poor knowledge of feeding. Parents often neglect nutritional support and only focus on food that

should be avoided. Pediatricians should direct the parents to pediatric nutritionist and check on the growth development of the child accordingly. Measurements data should be recorded and check on the child in every follow up sessions for any complications. Child should be guided through a child psychiatrist for self-disciplinary management for food.

Conclusion

Based on the cases that are reported children are more likely to have growth complications due to inadequate supplement of nutrition. It mostly depend on the lack of knowledge about nutritional support for children and their attention for food allergens. But these children are supposed to get special attention as same as their avoiding food and their supplementing food.

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