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ALLERGIC DISORDERS

FOOD ALLERGY IN CHILDREN***Ganesh R******Sathiyasekeran M**

Abstract: Food allergy (FA) is a common cause of morbidity in children and young adults especially in developed countries with a prevalence of 6 to 8 %. FA is also an emerging problem in children from developing countries including India. True food allergy is an immunologically mediated reaction which may be IgE mediated, non IgE mediated or mixed and can range in its severity from mild to life threatening event. The task faced by the pediatrician is to recognize the clinical features of food allergy and differentiate it from a wide spectrum of non immunologic adverse food reactions. FA continues to pose a therapeutic challenge to the pediatrician since no definite therapy exists to prevent or cure FA and the best option available is dietary elimination of the specific food allergen. This article highlights the gastrointestinal manifestations of food allergies in children.

Key words: Food allergy, Children, IgE, Elimination diet

Points to Remember

- *Food allergy should be considered in children with reproducible signs and symptoms in relation to specific food allergen.*
- *In many children the symptoms may be transient, mild and may be lost with age but in some the reaction is severe and permanent.*
- *Elimination of the specific allergen without compromising the nutrition is the best therapeutic option.*
- *History is still an excellent tool in the IgE mediated disorders.*
- *Endoscopy and histology are useful in a select group of children with FA and should be recommended.*

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ALLERGIC DISORDERS

COW'S MILK PROTEIN ALLERGY

***Sumathi B**

Abstract: *In recent times food allergy is being increasingly recognized in children. Cow's milk protein allergy (CMPA) is an important cause of food allergy in infants and young children due to immunological reactions to one or more milk proteins. The clinical signs and symptoms of CMPA vary from subtle features to frank anaphylactic reactions. Symptoms involving skin, respiratory, gastro intestinal tract can be the presenters feature. Early recognition and prompt intervention is necessary to restore normal growth and development in infants. Response to elimination diet and reappearance of signs and symptoms on reintroduction remains the gold standard test in the diagnosis of CMPA in a clinical setting.*

Key words: *Cow's milk protein allergy, Food allergy, Hypo allergenic formula, Children*

Points to Remember

- *Cow's milk protein allergy is an important cause of food allergy in infants and young children.*
- *More than two organ system can be involved and the reactions may be IgE or non IgE mediated one.*
- *Clinical symptoms may vary in severity and may be non specific at times.*
- *Early recognition of signs and symptoms is essential to have a favourable outcome.*
- *High index of suspicion, clinical improvement on milk withdrawal and reappearance of symptoms on challenge remain the gold standard test in diagnosis.*
- *Exclusive breast feeding, avoidance of early introduction of allergenic items are likely to reduce the condition.*
- *Soy based formula, extensively hydrolysed formula, aminoacid formula are currently available to tackle CMPA.*

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ALLERGIC DISORDERS

DRUG ALLERGY – AN OVERVIEW

***Terance A**
 ****Pansare M**
 *****Shanmugam P**

Abstract: *Drug allergy is an immunologically mediated adverse drug reaction. It is classified based on the type of hypersensitivity reaction and timing of onset of reaction. Immediate reactions are IgE mediated and delayed reactions are non IgE mediated. A detailed history, review of records and clinical examination are necessary but not sufficient to confirm drug allergy. Skin testing is helpful in diagnosing type I drug hypersensitivity reactions but it is standardized only for few drugs. Treatment of drug allergy includes withdrawal of the offending drug and timely management of anaphylaxis and other life threatening conditions. Options for continuing treatment include use of alternative drug or desensitization.*

Keywords: *Drug allergy, Drug hypersensitivity, Graded challenge, Desensitization.*

Points to Remember

- *Drug allergies are over reported by patients.*
- *Diagnosis of suspected drug allergy should be always confirmed after thorough evaluation.*
- *Wrong diagnosis can lead to escalation of treatment costs, exposure to potentially more toxic drugs and there is also risk of developing drug resistance.*
- *Withdrawal of offending drug is the simplest and the most effective first step in the management of drug allergy.*
- *Graded challenge and desensitization procedures are contraindicated after serious non anaphylactic reactions like Steven Johnson Syndrome.*

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ALLERGIC DISORDERS

ALLERGIC RHINITIS

***Gowrishankar NC**

Abstract: Allergic rhinitis (AR) is a common problem in children frequently underdiagnosed and undertreated. The classical symptoms are nasal obstruction, sneeze, rhinorrhea and nasal itch. AR affects quality of life by mainly affecting sleep and causing day time somnolence which in turn interferes with scholastic performance in school. AR is generally managed by allergen avoidance, which in reality is rarely feasible, drug treatment, which is mainly based on antihistamines and topical corticosteroids and allergen-specific immunotherapy.

Keywords: Allergic rhinitis, Clinical features, Management.

Points to Remember

- *Allergic rhinitis is commonly underdiagnosed and under treated.*
- *Quality of life is affected in AR*
- *AR is one cause for decreased scholastic performance, poor sleep quality*
- *Drug therapy gives good control of symptoms though allergen avoidance is ideal*
- *Allergen specific immunotherapy needs standardization.*

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ALLERGIC DISORDERS

ALLERGY SCREENING TESTS: ROLE IN THE ASSESSMENT OF CHILDHOOD ALLERGY

* **Vedanthan PK**
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Abstract: *In the recent decades, there has been an increase in the prevalence and incidence of allergic diseases; both in the developed and developing nations. This trend has been particularly true of the pediatric age group. The increase has correlation with; change in the life style, emigration and urbanization of the population. In India, all these changes have been evident in the past 3 decades.*

Since allergic disorders form a significant portion of the pediatric practice, a pediatrician should be conversant with the screening techniques for allergic disorders. Needless to say this will have impact on both diagnosis and management of allergic disorders.

Keywords: *Allergy, Atopy, Sensitization, IgE, Food allergy*

Points to Remember

- *Allergies are common in childhood*
- *Food allergies affect 6% of the children in USA*
- *Food allergies affect 33% of children with Atopic dermatitis.*
- *Screening for the common food and inhalants will help the pediatrician to manage better.*
- *For children suspected of atopic sensitization, a panel of the most common indoor and outdoor allergens as well as a few common foods could be included.*
- *The selection of antigens and the number of antigens tested is based upon the clinical presentation.*
- *Skin prick testing and RAST/Phadia are all excellent screens for atopy.*
- *It is important for the pediatrician to appreciate the difference between sensitization and allergy.*
- *While tests are valuable aids to diagnose allergy, it is very important NOT to treat the skin test or the blood test; but to TREAT the whole patient.*

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ALLERGIC DISORDERS

ALLERGEN SPECIFIC IMMUNOTHERAPY***Nagaraju K**

Abstract: Allergen immunotherapy is a disease modifying therapy and prevents the progression of allergic diseases especially in those patients who demonstrate specific IgE antibodies to relevant allergens. Immunotherapy involves giving gradually increasing doses of the allergen, to which the person is allergic. This in turn causes the immune system to become less sensitive to the substance, which reduces the symptoms of allergy when the same allergen is encountered in future. This article elaborates the various components involved in immunotherapy.

Keywords: Immunotherapy, Dust mites, SLIT, Allergic reactions.

Points to Remember

- *Immunotherapy is the only modality available now to modify the pattern of allergic diseases.*
- *Subcutaneous immunotherapy is highly effective if instituted early by a trained person in carefully selected patients.*
- *Subcutaneous immunotherapy may also prevent onset of new sensitizations and progression of rhinitis to asthma in children.*
- *Sublingual immunotherapy has emerged as a promising alternative.*

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ALLERGIC DISORDERS

ALLERGY PREVENTION STRATEGIES

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Abstract: *In the backdrop of rising allergic diathesis globally, strategies need to be planned for allergy prevention, especially for high risk infants. There has been a paradigm shift in the concept of allergy prevention from allergen avoidance to development of tolerance. Avoidance of smoking during pregnancy, healthy balanced diet during pregnancy and lactation, exclusive breastfeeding for first six months of life and timely introduction of complementary feed at about six months of age are the unequivocal recommendation for prevention of allergic manifestations in early as well as later life. Extensively hydrolyzed formula for top-fed infants; prenatal and postnatal dietary supplementation of n-3 long chain polyunsaturated fatty acid (LCPUFA), Vitamin D and anti-oxidants; pro/prebiotic during pregnancy are some other areas of allergy prevention which are under research and need more evidence before any public health guidelines can be formulated.*

Keywords: *Allergy prevention*

Points to Remember

- *Definitive guidelines for prevention of allergy include avoidance of smoking during pregnancy, use of healthy balanced diet during pregnancy and lactation.*
- *Exclusive breastfeeding for first six months of life and timely introduction of complementary feed at about six months of age.*
- *Newer strategies still need the support of more extensive and conclusive research. Additional studies from the developing world are also desirable.*

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GENERAL ARTICLES

“INTERMITTENT AND LONG TERM PROPHYLAXIS IN FEBRILE SEIZURES”

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Abstract: Febrile seizure is a condition where seizure occurs in response to fever. The typical simple febrile seizures are generalized tonic clonic usually lasting less than 15 minutes. This is a common occurrence in children in the age group 6 to 60 months. The common queries, arising in mind of a treating physician are recurrence of febrile seizures, increased risk of epilepsy, decline in IQ and death after or during an episode of febrile seizure. This article aims to answer these queries and also to give comprehensive guidelines regarding intermittent and continuous prophylaxis in febrile seizures. Long-term prophylaxis in febrile seizures is not recommended. The prognosis is generally good.

Keywords: Febrile seizure, Epilepsy, Prophylaxis.

Points to Remember

- *Simple febrile seizure is a benign and common event, seen between 6 to 60 months of age.*
- *The prognosis of simple febrile seizures is excellent.*
- *Acetaminophen and ibuprofen are good antipyretic drugs, but they do not reduce the incidence of febrile seizures.*
- *Long-term prophylaxis with anticonvulsant therapy is not indicated in simple febrile seizures.*
- *Intermittent anticonvulsant prophylaxis with clobazam can be used to prevent the recurrences in simple febrile seizures or when the parental anxiety is too much, but it will not prevent the future epilepsy.*
- *Reassurance and adequate counseling to the family regarding the benign nature of the illness is important.*

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GENERAL ARTICLES

FEEDING ISSUES IN PRETERM BABIES

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Abstract: *The goal of feeding preterm infants is to maintain intrauterine growth rate until full term to support catch up growth thereafter. Feeding of preterm babies is challenging because of various physiological and pathological complications. The guidelines on feeding preterm babies are evidence based and have shown that a simple intervention such as early initiation of breastfeeding not only improves the survival in resource poor setting but also has great influence on long term neuro development outcome. The manuscript addresses the practical issues in feeding preterm babies which the health care providers face in day to day clinical practice.*

Keywords: *Preterm, Feeding issues, Evidence based practical guidelines*

Points to Remember

- *Breast milk is the best choice for feeding preterm babies.*
- *Well preterm babies should be started on feeds soon after birth. Sick preterm babies should be started on minimal enteral nutrition as soon as hemodynamically stable.*
- *Preterm infants with good suck should be directly breastfed.*
- *Preterm infants who are exclusively breastfed should receive supplements of vitamin D, calcium, phosphorus and iron.*
- *Adequacy of feeding preterm babies should be assessed by regular growth monitoring.*

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DRUG PROFILE

ANTI-HISTAMINES IN PEDIATRICS***Jeerson C Unni**

Abstract: Antihistamines are very frequently prescribed by pediatricians. The 3 generations of antihistamines are available today as 40 different preparations. An attempt is made to review its use in pediatrics.

Keywords: Antihistamines, 1st generation antihistamines, 2nd generation antihistamines, 3rd generation antihistamines, children.

Points to Remember

- *Antihistamines are mainly used to provide symptomatic relief. They do not cure illnesses as they do not affect the underlying cause.*
- *As far as possible, avoid sedating antihistamines in children less than 2 years age and school going children and adolescents.*
- *Evidence exists for the use of antihistamines in children and adolescents for treating allergic rhinitis and conjunctivitis, atopic eczema, urticaria, insect bites or stings.*
- *All other indications for its use including common cold, cough, motion sickness, gastric ulcers, vomiting and psychiatric illnesses require further validation.*
- *2nd generation antihistamines are less sedating.*
- *3rd generation antihistamines further decrease the possible cardiotoxicity of antihistamines.*

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DERMATOLOGY

POLYMORPHIC LIGHT ERUPTION

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Abstract: Photosensitivity is defined as an abnormal reaction of the skin to exposure of ultraviolet light or visible light. Polymorphic light eruption (PMLE) is the most common photodermatoses seen in children. PMLE is an immunologically mediated disorder which is postulated to occur due to the failure of UV induced immunosuppression and a delayed hypersensitivity reaction to an endogenous, cutaneous neoantigen produced after ultraviolet light exposure. It occurs in healthy children and is characterized by the presence of polymorphic skin lesions such as skin coloured or erythematous, pruritic papules, vesicles and plaques, hypopigmented and eczematous patches in the sun exposed sites, in different individuals. Lesions tend to be monomorphic in a single individual. Photoprotection plays a pivotal role in the management of PMLE. General measures include avoidance of sun exposure, use of protective clothing, wide-brimmed hat, umbrella, sun glasses and a broad spectrum sun screen. Topical steroids and anti-histamines are useful.

Keywords: Ultraviolet light, Photoprotection, Sunscreens.

Points to Remember

- *PMLE is the most common pediatric photodermatoses.*
- *PMLE occurs in older school going healthy children in contrast to the hereditary photodermatoses that present during neonatal/ infantile period.*
- *Face is more commonly affected in children.*
- *Photoprotection plays a major role in the management of PMLE. General measures include avoidance of high intensity sunlight, use of protective clothing, wide-brimmed hat, umbrella and broad spectrum sunscreen.*
- *Counseling the children and parents is very important. Sunscreens are to be applied in sufficient quantity regularly to ensure effective protection against UV light.*

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CASE STUDY

AN INTERESTING CASE OF ARTERIOVENOUS MALFORMATION

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Abstract: *Arteriovenous malformation (AVM) is a rare condition seen in children that results from abnormalities in blood vessels which may be potentially fatal. AVM with high flow of the head and neck are characterised by massive bleeding and aesthetic defects. Here we report a case of high flow arteriovenous malformation in the right retro maxillary region in a ten year old female child who presented with massive pulsatile bleeding from the oral cavity.*

Keywords: *Arteriovenous malformations, Pulsatile bleeding, Retro maxillary region*

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CASE STUDY**CAFFEY'S DISEASE WITH BILATERAL ULNAR INVOLVEMENT**

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Abstract: "Caffey's disease" or "infantile cortical hyperostosis", a rare disorder in childhood, is a self limiting disease of unknown aetiology occurring in infants, characterised by fever, irritability, swelling of soft tissues and cortical bone thickening. Mandible, legs and forearm are the most common sites of osseous involvement. Among the long bones, tibia and ulna are the most common to be affected but symmetrical involvement is rare. We report an unusual case of symmetrical involvement of ulna.

Keywords: *Caffey's disease, Bilateral ulnar hyperostosis, Symmetrical hyperostosis and self limiting hyperostosis.*

Points to Remember

- *Caffey's disease is a diagnosis of exclusion, to be considered when hyperostosis of bones is seen and an important differential diagnosis of sclerosing osteomyelitis.*
- *It is a benign condition showing a waxing and waning course.*
- *The disease shows remission by 4 to 5 years of age.*

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