



INDIAN JOURNAL OF PRACTICAL PEDIATRICS



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Editor-in-Chief

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ISPNCN 2012

**34th NATIONAL CONFERENCE
OF
INDIAN SOCIETY OF PEDIATRIC NEPHROLOGY**

Organized by
Madras Pediatric Society President (MPSP)
and
Dept of Pediatric Nephrology, Madras Children's Hospital, Chennai
in collaboration with
Indian Society of Pediatric Nephrology (ISPNCN)

Madras Child Health Museum Dates: 28th, 29th & 30th September 2012

Topics to be discussed:

- A. Update on the emerging renal conditions
- Renal transplantation issues
- Advances in dialysis, dialysis adequacy index as relative child-to-adult dialysis dose
- Advances, current management of chronic kidney disease in various specialities
- Renal transplantation of children, outcomes & challenges
- Management of chronic and end-stage renal disease in children
- Progress, management approaches in paediatric end-stage renal disease
- Kidney donation, clinical & ethical issues
- Advances in renal biopsy, renal biopsy safety, biopsy reuse
- Kidney transplantation: paediatric transplantation through the ages

Topics:

- Abstracts Invited

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• Pediatric 28-35 years	• Student 18-27 years (max)
	• Resident (max 17 including international)
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PEBICON 2013

14th Annual National Conference of IAP

Faculty of Education, United Arab Emirates University, Al-Ain, UAE

14-16 February 2013

Program of the Conference

14-16 February 2013, Al-Ain, United Arab Emirates

Day 1

Time	14 Feb	15 Feb	16 Feb
08:00-09:00	Registration	Registration	Registration
09:00-10:00	Registration	Registration	Registration
10:00-11:00	Registration	Registration	Registration
11:00-12:00	Registration	Registration	Registration
12:00-13:00	Registration	Registration	Registration
13:00-14:00	Registration	Registration	Registration
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 23:00-24:00: Registration

14th Annual National Conference of IAP

The conference is a platform for researchers, practitioners, and students to share their work and experiences in the field of education. It provides an opportunity for networking and collaboration among professionals from different countries and institutions. The conference is organized by the Faculty of Education, United Arab Emirates University, and is held in Al-Ain, UAE. The conference is a significant event in the academic calendar and is attended by a large number of participants from around the world. The conference is a valuable opportunity for researchers to present their work and receive feedback from their peers. It is also a chance for practitioners to learn from the experiences of others and to share their own. The conference is a platform for students to present their research and to receive guidance from experienced researchers. The conference is a significant event in the academic calendar and is attended by a large number of participants from around the world. The conference is a valuable opportunity for researchers to present their work and receive feedback from their peers. It is also a chance for practitioners to learn from the experiences of others and to share their own. The conference is a platform for students to present their research and to receive guidance from experienced researchers.

14:00-15:00: Registration
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4th Refresher Course on Pediatric Critical Care & Emergencies
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Authors contribution

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3rd Page -

Acknowledgement

Points to remember (not more than 5 points)

Text

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Article Categories**Review article**

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250 – 600 words, 8 – 10 recent references

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150 – 200 words write up

With 1 or 2 images of clinically recognizable condition

(of which one could be in the form of clinical photograph / specimen photograph / investigation)

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200 – 250 words pertaining to the articles published in the journal or practical viewpoints with scientific backing and appropriate references in Vancouver style.

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PULMONOLOGY

RECURRENT RESPIRATORY INFECTIONS - AN APPROACH

*Subramanyam L

Abstract: *Recurrent respiratory tract infections (RRI) is a commonly encountered problem in children. While evaluating, it is necessary to find out if they have atopy, underlying chronic disease or immuno deficiency so that their RRI can be managed better.*

Keywords: *Recurrent respiratory infections (RRI), Children.*

Points to Remember

- *Recurrent respiratory infections can be grouped into four categories, the normal child, the child with atopic disease, the child with chronic condition and the child with an immunodeficiency.*
- *Mos of the respiratory infections are viral. Tese children have normal growth and development, recover completely and appear healthy in between infections.*
- *Many cases of so called recurrent respiratory infections' actually represent hyperreactive airway disease. yperreactive airway may justify treatment but not investigations except in case of atypical presentation.*
- *Rcurent bacterial infections are always seondary to underlying structural and functional abnormalities.*
- *Bronchiectasis is the end results of a*

variety of conditions.

- *Primary immunodeficiency has to be considered in any child who suffers from recurrent, persistent or unusual infections of any site with failure to thrive. The screening evaluation should include both quantitative and qualitative tests.*
- *Tuberculosis is not a recurrent infection, but it remains an important differential diagnosis in all age groups in our country.*

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PULMONOLOGY

**COMMUNITY ACQUIRED
PNEUMONIA –
MANAGEMENT GUIDELINES'**

*Gautam Ghosh

Abstract: *Pneumonia is the single leading cause of death in children worldwide. In developing countries, community acquired pneumonia(CAP) is usually caused by bacterial pathogens. In view of the difficulty and cost associated with identification of etiological agents, the choice of antibiotic in most cases of CAP is empirical. Management issues for pneumonia include early diagnosis, availability of appropriate antibiotics, timely and appropriate referral, monitoring and follow up. Underutilisation and misuse of antibiotics are the two key features of the present scenario which need to be addressed.*

Keywords: *Community acquired pneumonia, Antibiotics in pneumonia.*

Points to Remember

- *Pneumonia is the leading cause of mortality and common cause of morbidity in children below 5 years.*
- *In developing countries bacterial infections are the the most common cause of pneumonia. Streptococcus pneumonia Hemophilus influenzae type b and Staphylococcus aureus are the common offenders.*
- *Administration of appropriate antibiotics in the early phase of pneumonia alters the outcome.*

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and Research
Kolkata.

- *Oral amoxicillin is the drug of choice in most cases of non severe pneumonia. Oral cefixime is a poor choice.*
- *All children (specially below 3months of age) with severe pneumonia should be hospitalised and treated with parenteral antibiotics.*

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PULMONOLOGY

**ASTHMA SYNDROME -
UNDERSTANDING ASTHMA
PHENOTYPES IN CHILDREN**

* Mahesh Babu R
* Ilin Kinimi

Abstract: *Since the first National heart, blood, lung institute (NHBLI)-Asthma Management guidelines (1991), the international recommendations have been to diagnose asthma with a set of clinical parameters, and treat with a standardized approach.*

However, practicing physicians, encounter children who continue to have symptoms despite adequate and appropriate therapy. Asthma is not a single disease, but a common manifestation of many overlapping individual diseases or phenotypes – each characterized by its own genetic and environmental interaction. Hence asthma is now classified as phenotypes.

So, does phenotype represent superficial groups of asthmatic children with similar set of signs and symptoms or does it actually represent fundamentally separate disease entities?

Keywords: *Childhood asthma , Classification, Phenotypes, Management*

* Senior Consultant,

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University Children's Medical Institute,
National University Hospital, Singapore.

Points to Remember

- *There is a lack of specific biological basis for the disease heterogeneity in asthma— either genetic or causal, hence asthma is now classified as phenotypes.*
- *Methods of phenotyping can be based on clinical and pathophysiological features.*
- *Phenotyping therefore has therapeutic implications .*
- *It is paramount for us to understand that differences do exist amongst asthmatic children and one treatment will not fit all and it is important to individualize each child's management.*
- *Though we might still start with a unified approach (GINA or NHBLI guidelines), we will need to monitor the response and change strategies if need be.*

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PULMONOLOGY

DIAGNOSIS OF TUBERCULOSIS - NEWER INVESTIGATIONS

* **Varinder Singh**
** **Satnam Kaur**

Abstract: Tuberculosis is one of the important infectious diseases affecting children and is responsible for disease and death in them. Inadequacies of the available diagnostic tests for tuberculosis have contributed to both under and overdiagnosis of the disease and have driven the zeal for development of new effective point of care diagnostic tools. The paucibacillary and extra-pulmonary disease among children makes the diagnosis more challenging. The current strategy is to look for novel approaches while also working for improvement in the existing diagnostics. Among the tools developed so far, those likely to have major impact on diagnosis of pediatric tuberculosis include: better specimen collection and processing techniques, improvement in microscopy and newer culture methods. Most relevant application of Nucleic Acid Amplification Tests (NAATs) appeared to be for rapid detection of mutations associated with drug resistance. And, the recently developed Xpert MTB/RIF® system holds promise as a rapid, point of care diagnostic for childhood tuberculosis. Development of

Interferon Gamma Release Assays (IGRAs) in place of Tuberculin skin test (TST) has not led to any better diagnosis of disease though these tests are more specific and not affected by BCG vaccination. Skin test with recombinant dimer ESAT-6 (rdESAT-6), urinary lipoarabino-mannan (LAM) assay and test for volatile organic compounds produced by mycobacteria in breath are newer promises in the diagnostics pipeline that seem attractive and need further evaluation in pediatric population.

Keywords: Childhood tuberculosis, Diagnosis, New tools, IGRAs, Rapid culture, NAATs, Xpert.

Points to Remember

- *Despite the difficulties of bacteriological diagnosis in children, a sincere and active effort must be made for mycobacterial detection and isolation in appropriate clinical specimens.*
- *Smear microscopy of appropriate specimen remains the primary means of bacteriological diagnosis of TB in resource poor settings.*
- *More research is needed to support routine use of light emitting diode (LED) fluorescence microscopy in place of conventional microscopy for pediatric TB.*
- *Automated liquid culture systems are a significant advance over traditional solid culture media, but are complex, costly and require sophisticated lab infrastructure.*

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** Asst. Professor of Pediatrics,
Maulana Azad Medical College,
New Delhi.

- ***Utility of non conventional, non commercial culture and DST methods like MODS, NRA, CRI assays in primary and extra-pulmonary form of paucibacillary disease is likely to be low and these methods need further evaluation in pediatric population.***
- ***Main value of NAATs such as LPAs and PCR lies in rapid detection of mutations associated with drug resistance. Xpert MTB/RIF® may be the turning point in the role of NAATs in diagnosis of all forms of TB as a point of care test.***
- ***There is no clear evidence to support the use of IGRAs in place of TST for diagnosing TB infection.***

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PULMONOLOGY

CYSTIC FIBROSIS- WHEN TO SUSPECT AND HOW TO MANAGE

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Abstract: Cystic fibrosis (CF) is an autosomal recessive disorder due to a mutation in the CFTR gene leading to failure of chloride conductance by epithelial cells. As a result of this, the secretions become too viscid and difficult to clear. Clinical features are variable. Common presenting clinical features include: recurrent chest infections, malabsorption and failure to thrive. CF may be suspected in a child presenting with meconium ileus, recurrent pneumonia and / or malabsorption of pancreatic origin. Other laboratory evidence supporting a possibility of CF include: hypochloremic metabolic alkalosis, airway colonization with *P. aeruginosa*, abnormal pancreatic function tests and obstructive azoospermia in post pubertal males. The diagnosis of CF is confirmed by the demonstration of a high sweat chloride (>60 mEq/L) on at least two occasions or by identifying two CF causing mutations or by suggestive nasal potential difference measurements.

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The treatment of cystic fibrosis in children includes respiratory management, nutritional care, anticipation and early diagnosis of liver disease, diabetes and other organ dysfunction. Airway clearance techniques include adequate hydration, chest physiotherapy and mucolytic agents. Antibiotics can be used via intravenous, oral or inhalational route, when needed. Long term use of low dose azithromycin has immunomodulatory effect. Other supportive care includes increased calorie intake, supplementation of fat soluble vitamins and replacement of pancreatic enzymes.

With improvement in multidisciplinary management of CF, life expectancy of CF patients is increasing.

Keywords: Cystic fibrosis, Hypertonic saline, Pancreatic enzyme, Pseudomonas.

Points to Remember

- **Suspect cystic fibrosis in every child who presents with recurrent respiratory tract infections, malabsorption and failure to thrive.**
- **Management of CF includes not only treating respiratory infection and improving mucus clearance from the airways but also giving proper nutritional care, supplementation of fat soluble vitamins and pancreatic enzymes.**
- **Survival of children with CF can be improved by early diagnosis, proper institution of supportive care and prompt treatment of respiratory infections.**

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PULMONOLOGY

APPROACH TO RECURRENT PNEUMONIA IN CHILDREN

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Abstract: *Children with recurrent chest infections pose diagnostic challenge for clinicians. The causes may vary from simple recurrent viral respiratory infections to more serious underlying pathology, such as bronchiectasis. Many different disorders like asthma, cystic fibrosis, various immunodeficiency and congenital abnormalities of respiratory tract can present in similar way. The assessment of these children require close attention to history and examination, as causes are many. Early and accurate diagnosis is essential to ensure early optimal treatment and to minimize the risk of progressive or irreversible lung damage. This article focuses on the practical approach to the diagnosis of recurrent pneumonia in children.*

Keywords: *Recurrent pneumonia, Immune deficiency, Congenital airway anomalies, Asthma.*

Points to Remember

- ***Resolution of radiological changes in pneumonia depend on causative agents.***
- ***Chronic micro-aspiration and poorly controlled asthma have to be ruled out in a child with recurrent pneumonia involving multiple lobes.***

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- ***History and physical examination are important part of evaluation in such children.***
- ***Immunodeficiency is suspected if in addition to recurrent pneumonia, there is evidence of infection at other sites.***

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PULMONOLOGY

PARAPNEUMONIC EFFUSION AND EMPYEMA

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Abstract: *Parapneumonic effusion (PPE) occurs as a complication mainly in bacterial pneumonia. It can be simple or complicated. Early identification of complicated, parapneumonic effusion and appropriate treatment helps to reduce the associated morbidity and mortality. Pleural fluid pH, glucose, LDH levels, Gram stain and culture are the investigations to be done along with ultrasound of chest. Management includes institution of appropriate antibiotics with tube thoracostomy, intrapleural fibrinolytics or video assisted thoracoscopy (VATS).*

Keywords: Parapneumonic effusion, Pleural fluid analysis, Antibiotics, Tube thoracostomy, VATS

Points to Remember

- *PPE should be looked for in every child with pneumonia who do not show a response at the expected time after starting treatment.*
- *Prompt treatment with appropriate systemic antibiotics and chest tube drainage are the first line of the management in complicated PPE.*
- *If the child does not improve within 24-4 hours of tube thoracostomy, suspect*

loculations and evaluate further with radiological investigations.

- *Intrapleural fibrinolytics administration is safe.*
- *Consider early VATS in complicated PPE and empyema.*

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PULMONOLOGY

FLEXIBLE FIBEROPTIC BRONCHOSCOPY

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Abstract: *Flexible pediatric bronchoscope is an important tool in the diagnostic armamentarium of respiratory diseases in children. As it is not available freely, the importance of this investigation is less well known. This article will give an overview of flexible fiberoptic bronchoscopy.*

Keywords: Flexible bronchoscopy, children.

Points to Remember

- *FOB is an important diagnostic tool to evaluate pediatric respiratory diseases.*
- *It is safe and can be done at bedside also in ICU setting.*

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PULMONOLOGY

**NON-INVASIVE VENTILATION -
A PRACTICAL APPROACH**

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Abstract: *Non-invasive ventilation(NIV) refers to provision of ventilator support through the patient's upper airway using a mask or similar device. There is an increasing use of NIV in adults and there are pediatric studies which document the use of NIV. NIV is the best for patients who are not too sick. NIV is good option over conventional ventilation in selected patients in select conditions.*

Keywords: *Non-invasive ventilation, Nasopharyngeal CPAP, Mask.*

Points to Remember

- *NIV should be used carefully in select pediatric patients only.*
- *Creful monitoring is the rule when children are started on NIV.*
- *Inthe event of child failing NIV then he should be urgently intubated.*
- *NIV is best for patients who are not too sick. NIV is good option to conventional ventilation in carefully selected patients in select conditions*

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GENERAL ARTICLES

BRAIN DEATH: PRACTICAL APPROACH

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Abstract: *Perfect understanding of death has not been easy anytime. The concept of brain/brainstem death - permanent loss of all functions of whole of brain/brainstem has made it possible to take decisions regarding organ donation and stopping inapt life-support measures. Now many countries, including India, recognize it to be equivalent to death. Determining brain/brainstem death in patients basically depends on a set of clinical criteria and ancillary studies. There is considerable variation among institutions in using these criteria. India needs locally applicable guidelines to confidently diagnose brainstem death.*

Keywords: *Brain, Brainstem, Death, Criteria.*

Points to Remember

- *The concept of brain/brainstem death has been equated to death, legally, in many countries.*
- *Considerable variation exists in criteria use to diagnose brain/brainstem death across the world and among the institutions.*
- *Criteria for determining brainstem death in Indian scenario should be developed.*

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GENERAL ARTICLES

HYPERTENSIVE CRISIS IN CHILDREN

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Abstract: *Hypertensive crisis is not uncommon in children a potentially life threatening medical emergency. Hypertensive crisis are situations when marked elevations in blood pressure is associated with progressive or impending target organ damage. Most children with hypertensive crisis have an underlying secondary cause for hypertension. The "Fourth Report on High blood pressure provides updated normative data for BP for healthy children aged 1 to 17 years according to age, gender and height. This review article aims to help practitioners and pediatricians to know the manifestation of this crisis and its effective management.*

Keywords: *Hypertensive crisis, Hypertensive emergency.*

Points to Remember

- *Distinguishing between hypertensive emergency (associated with acute target organ damage) and urgency (no target organ damage) is crucial to appropriate management.*

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- *Diagnosis of hypertensive emergency requires a thorough history (evidence of target organ damage, illicit drug use and medication compliance) as well as a complete physical examination, basic laboratory data and electrocardiogram to assess for the presence of target organ damage and determine its severity.*
- *Hypertensive urgency is managed using oral antihypertensive drugs in outpatient or same day observational settings, while hypertensive emergency is managed in an intensive care unit or other monitored settings with parenteral drugs.*
- *The initial goal in hypertensive urgency is a reduction in mean arterial pressure by no more than 25% within the first 24 hours using conventional oral therapy in hypertensive emergency, mean arterial pressure should be reduced by less than 25% over the first 2 to 8 hours and gradually the blood pressure should be normalized over the next 24 to 48 hours.*
- *Various medications are available for the treatment of hypertensive emergency appropriate therapy should be based on specific target organ involvement and underlying patient's comorbidities.*

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DRUG PROFILE

MONOCLONAL ANTIBODIES IN PEDIATRIC THERAPEUTICS

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Abstract: *Monoclonal antibodies (mAbs), developed just 4 decades ago, have become a necessary treatment modality in some childhood illnesses that do not responded to standard first line therapy. New molecules are being recognized and as a consequence, a number of trials using these drugs are being conducted and published. A review of applications of a few important molecules in this category is presented.*

Keywords: *Monoclonal antibody, abciximab, adalimumab, alemtuzumab, basiliximab, infliximab, omalizumab, palivizumab.*

Points to Remember

- **Monoclonal antibodies are not first line rugs in treating pediatric illnesses. Under expert advice disease specific antibody may be administered in treatment of the following conditions when standard therapy fails**
- **Malignancies - acute lymphoblastic eukemia, non Hodgkin lymphoma, neuroblastoma**
- **utoimmune disorders - Juvenile idiopathic arthritis, SLE, Crohn's disease, ulcerative colitis, Kawasaki disease**

- **Prophylaxis against organ transplant rejection and RSV infection in high risk cases**
- **Since they are large molecules they need to be administered by parenteral route.**
- **Potential risks of therapy are vulnerability for infection (including tuberculosis) and in a rare occasion the induction of autoimmune disease.**

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DERMATOLOGY

BASIDIIBOLOMYCOSIS* **Madhu R**

Abstract: *Subcutaneous phycomycosis also called as Basidiobolomycosis or chronic subcutaneous zygomycosis or Entomophthoromycosis basidiobolae is a rare entity, but it is the most common subcutaneous fungal infection that occurs in children. It is caused by Basidiobolus ranarum and is characterized by the presence of a painless, slowly progressive well defined swelling/plaque, firm in consistency. Swelling can be lifted from the underlying structures and fingers can be insinuated beneath the margins, which is indeed the diagnostic feature. This condition is often misdiagnosed as an abscess, soft tissue tumour, etc, resulting in unnecessary surgical intervention. Diagnosis is clinched by the characteristic clinical presentation with a confirmation by histopathological examination and mycologic culture. Complete resolution occurs with potassium iodide, which is the gold standard therapy for this infection. Itraconazole and trimethoprim and sulfamethoxazole have been tried and found to be effective.*

Keywords: *Subcutaneous fungal infection, Basidiobolomycosis, Splendore-Hoeppli, material, Potassium iodide.*

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Points to Remember

- *Basidiobolomycosis is a rare subcutaneous fungal infection, primarily seen in children.*
- *Characteristic clinical features – Painless, slowly progressive, well demarcated subcutaneous mass/plaque, firm in consistency, attached to the skin, freely mobile over the underlying structures. Fingers can be insinuated at the margins of the swelling, which can be lifted from the underlying deeper structures.*
- *Diagnostic HPE finding- Granulomatous infiltrate with plenty of eosinophils and fungal elements seen as unstained tubes and haloes surrounded by eosinophilic fringe (Splendore Hoeppli granular material).*
- *Potassium iodide (KI) is the gold standard treatment. Trimethoprim - Sulpha methoxazole and itraconazole either alone or in combination with KI are effective.*
- *Early, correct diagnosis will prevent unnecessary surgical intervention.*

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CASE STUDY

**TRACHEAL BRONCHUS IN AN
INFANT WITH RECURRENT
UPPER LOBE PNEUMONIA**

* *Suresh Babu PS*
** *Agarwal Nagamani S*

Abstract: *Tracheal bronchus is an aberrant bronchus that arises most often from the right lateral wall of the trachea above the carina and directed to the upper lobe territory. This congenital anomaly may remain asymptomatic or present with wheezing, stridor, cough, recurrent or persistent right upper lobe pneumonia. We report a case of tracheal bronchus in a 9-month old female infant who presented with recurrent right upper lobe pneumonia.*

Keywords: *Tracheal bronchus, Recurrent upper lobe pneumonia*

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CASE STUDY

**A RARE CAUSE OF EOSINO
PHILIA- ANTICONVULSANT
HYPERSENSITIVITY SYNDROME**

* **Sudip Saha**

** **Madhusmita Sengupta**

Abstract: *The term “anticonvulsant hyper sensitivity syndrome” refers to a severe, idiosyncratic cutaneous reaction to drugs, which leads to long-lasting skin eruptions in combination with facial edema, lymphadenopathy, fever, multivisceral involvement, eosinophilia and lymphocytosis. So far, numerous drugs such as sulfonamides, phenobarbitone, sulfasalazine, carbamazepine and phenytoin have been reported to cause DRESS syndrome (Drug rash, Eosinophilia, systemic symptoms). It usually appears acutely in the first 4-8 weeks after initiation of the drug and persists in some cases for months and is potentially life threatening with a mortality rate of 10%. We report a rare cause of eosinophilia due to anticonvulsant hypersensitivity syndrome.*

Keywords: *Eosinophilia, Syndrome, Carbamazepine.*

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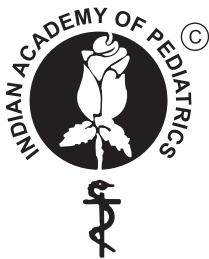
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