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# **Chang Gung Medical Journal**

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#### SPECIAL SECTION: UPDATES OF PEDIATRIC RESPIRATORY TRACT INFECTIONS

#### 745 Community-Acquired Pneumonia in Children: From Diagnosis to Treatment

David Greenberg, MD; Eugene Leibovitz, MD

Community-acquired pneumonia is a common and potentially serious infection that afflicts children throughout the world; it is fundamentally different between children and adults. Perhaps because of its etiological complexity, pneumonia in children has been relatively refractory to efforts to reduce its incidence and severity and improve the prognosis. Regional consensus guidelines for management and antimicrobial resistance should be developed, refined over time, and used by physicians in the hospitals.

#### 753 Avian Influenza

Tsung-Zu Wu, MD; Li-Min Huang, MD, PhD

The first outbreak of human illness due to avian influenza virus (H5N1) occurred in 1997 in Hong Kong with a mortality of 30%. The avian influenza epidemic has been going on in Asian countries since 2003. Recent evidence suggests that human bronchial ciliated epithelial cells contain terminal 2-6-linked sialyl-galactosyl moieties and can be infected with avian influenza virus. Judicious use of antiviral agents and stringent disease control measures are imperative to decrease the impact of a future pandemic.

# 758 Use of Antimicrobial Agents for Upper Respiratory Tract Infections in Taiwanese Children

Yu-Hsuan Huang, MD; Yhu-Chering Huang, MD, PhD

Upper respiratory tract infections (URTIs) are mostly caused by viruses. Antibiotics misuse for viral URTIs in children is a serious problem that not only results in selection of resistant strains of bacteria but also wastes millions of dollars each year in Taiwan. This article recommends the judicious use of antimicrobial agents for seven common pediatric URTIs, including the common cold, acute pharyngotonsillitis, acute otitis media, acute sinusitis, acute bronchitis, influenza and acute epiglottitis, based on local epidemiological data and the recommendations of the Infectious Disease Society of Taiwan and the American Academy of Pediatrics.

#### 765 Pneumococcal Vaccines

Chen-Fang Ho, MD; Tzou-Yien Lin, MD

Streptococcus pneumoniae is the leading bacterial pathogen of infectious diseases in children and adolescents. The 23-valent pneumococcal polysaccharide vaccine could prevent invasive pneumococcal infection with broader serotype coverage but still has some limitations. Seven-valent pneumococcal conjugate vaccine has been proved to be safe and highly efficacious against invasive pneumococcal diseases in young children younger than 2 years of age. The pneumococcal conjugate vaccine also shown to decrease naspharyngeal carriage of vaccine types and provided heard immunity. This article reviews the current status of pneumococcal disease and vaccines globally as well as in Taiwan.

#### **ORIGINAL ARTICLES**

#### 773 Pollakiuria in Children with Tic Disorders

Huei-Shyong Wang, MD; Hsieh-Lin Chang, MD; Siao-Wen Chang, MD, PhD

Pollakiuria in children with tic disorders (TD) has been rarely reported previously. During a period of one year, we found nine (1.9%) out of 467 children with TD also had pollakiuria. The pollakiuria resolved within two to six months, except in two male patients whose pollakiuria lasted for more than a year. Pollakiuria, although not frequently encountered in children with TD, could be a manifestation of tics or a compulsion, instead of just an anxiety disorder.

# 779 Comparison of Plasma Interferon-Gamma and Antigen 60 Immunoglobulin G in Diagnosing Pulmonary *Mycobacterium Tuberculosis* Infection

Huang-Pin Wu, MD; Chung-Ching Hua, MD; Chung-Chieh Yu, MD; Shao-Yun Wu

An elevated IFN-γ level has been reported in the plasma of patients with pulmonary tuberculosis. Serologic diagnosis of tuberculosis using A60 IgG is a well-known diagnostic approach. This study evaluated plasma IFN-γ compared to A60 IgG in diagnosing pulmonary tuberculosis. This study recruited 65 patients with tuberculosis and 59 controls. Results showed the combined test did not achieve significant improvement in disease prediction. The A60 IgG test and IFN-γ test had similar diagnostic value in pulmonary *Mycobacterium tuberculosis* infection.

# 786 Effects of Pelvic Nerve Neurectomy and Estrogen on the M2 Muscarinic Receptor of the Urinary Bladder

Ching-Chung Liang, MD; Long-Sun Ro, MD, PhD; Tsong-Hai Lee, MD, PhD

Urinary bladder smooth muscle is enriched with  $M_2$  muscarinic receptors, and the denervated rat bladder has shown that  $M_2$  receptors participate in the mediation of contraction. In this study, immunohistochemistry was used to detect the expression of  $M_2$  receptors on the smooth muscle cells of denervated rat urinary bladders and/or with four weeks of estrogen treatment. Our findings showed that bilateral pelvic nerve neurectomy appeared to magnify the estrogen-induced down regulation of  $M_2$  receptors in the urinary bladder of castrated female rats.

## 794 The Postpartum Metabolic Outcome of Women with Previous Gestational Diabetes Mellitus

Chia-Hung Lin, MD; Shih-Fen Wen, BSc; Ya-Hui Wu, BSc; Yu-Yao Huang, MD, PhD; Miau-Ju Huang, MD

A total of 127 prior-gestational diabetes mellitus (GDM) women received postpartum metabolic assessments in Taipei Chung-Gung Memorial Hospital from March 2001 to February 2003. The incidence rates of diabetes mellitus (DM) and abnormal glucose tolerance (AGT) i.e. impaired fasting glucose or impaired glucose tolerance, in women with previous GDM are 13.4% and 29.1%, respectively. High prepregnancy BMI and increased glycemic deterioration at the time of GDM are found in women developing postpartum DM or AGT. The fasting glucose value for 100g oral glucose tolerance test is an independent risk factor and more than three abnormal glucose values offers good diagnostic efficacy in predicting postpartum DM or AGT.

#### 801 Treating Colorectal Polypoid Neoplasms during a Colonoscopy

Wei-Pin Lin, MD; Ming-Yao Su, MD; Yu-Pin Ho, MD; Chen-Ming Hsu, MD; Chun-Jung Lin, MD; Cheng-Tang Chiu, MD; Pang-Chi Chen, MD

For colorectal polypoid neoplastic lesions, including protruded lesions and sessile lesions of < 5 mm, endoscopic polypectomy, either by hot biopsy forceps or snare, is an effective and safe procedure (a 0.05% perforation rate and a 1.8% bleeding rate). Cases involving submucosal lesions or an unclear resection margin should receive a further operation. In this study, no procedure-related mortality was found, and no recurrent malignancy was found after 14~56 months of follow-up.

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