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Shyh-Ming Hong, MD; Dar-In Tai, MD, PhD; Mai-Szu Wu, MD; Ja-Liang Lin, MD

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#### REVIEW ARTICLES

117 The Transforming Streptococcus Pneumoniae in the 21st Century

> Yu-Chia Hsieh, MD, PhD: Wen-Sen Lee, MD: Pei-Lan Shao, MD: Luan-Yin Chang, MD, PhD: Li-Min Huang, MD, PhD

Streptococcus pneumoniae is an important pathogen causing global morbidity and mortality, especially in children and the elderly. Fortunately, the advent of heptavalent conjugate vaccine confers a high degree of protection against pneumococcal disease and colonization caused by vaccine serotype strains. However, naturally transformable pneumococci may escape vaccine-induced immunity by switching their capsular genes to non-vaccine serotypes. Development of cheaper, serotype-independent vaccines based on a combination of protein antigens should be pursued.

125 Long-term Neuroplasticity Effects of Febrile Seizures in the Developing Brain

patients: clinical management relies mainly on FS phenotypic features.

Ying-Chao Chang, MD, PhD; Chao-Ching Huang, MD; Song-Chei Huang, MD Febrile seizures (FS) are the most common seizure disorder in childhood. Recent epidemiological studies reassure that most FS do not adversely affect intelligence and memory or cause temporal lobe epilepsy. However, magnetic resonance imaging shows that prolonged focal FS can produce acute hippocampal injury that evolves into atrophy. Animal studies show that early-life FS, particularly prolonged or repetitive FS, or together with brain malformation, may lead to sustained hippocampal dysfunction even without neuronal damage. Recent molecular advances point to the pathogenesis of FS but account for a small proportion of FS

ORIGINAL ARTICLES

136 Diabetes Mellitus Downregulates Expression of Connexin43 in Rat Aortic Medial Smooth Muscle Cells and Can Be Reversed by Simvastatin and Losartan Therapy

> Jiunn-Jye Sheu, MD; Tzu-Hsien Tsai, MD; Li-Teh Chang, PhD; Chiang-Hua Chiang, PhD; Ali A. Youssef, MD; Cheuk-Kwan Sun, MD, PhD; Nyuk-Kong Chang, DVM; Hon-Kan Yip, MD

This study tested the hypothesis that diabetes mellitus (DM) suppresses expression of connexin43 (Cx43), and that this suppression can be abrogated via simvastatin or losartan treatment. DM rats were divided into group I (insulin therapy), group II (insulin plus simvastatin 20 mg/kg/day) and group III (insulin plus losartan 20 mg/kg/day). Twenty-four diabetic rats and 8 healthy rats (group IV) were sacrificed 3 weeks after DM induction for analysis. Compared with groups II-IV, Cx43 expression in the aortic wall was significantly mitigated in group I. Additionally, Western blot results showed that Cx43 was significantly higher in groups II-IV than in group I.

145 Behavioral and Emotional Problems in Adolescents with Tourette Syndrome

Hsueh-Ling Chang, MD; Hsin-Yi Liang, MD; Hwei-Shioun Wang, MD;

Chian-Shan Li, MD, PhD; Nai-Chi Ko, BS; Yuan-Pei Hsu, BS

Forty Tourette syndrome (TS) adolescents were compared to thirty age-, gender- and IQ-matched normal controls using self-rated questionnaires and semi-structured psychiatric interviews. TS patients showed significantly more behavioral and emotional problems than the controls. TS adolescents with more severe tic symptoms were shown to have more internalization and externalization behavior problems, and obsessivecompulsive and aggressive behaviors. Internalization and externalization behavior problems, and aggressive behavior decreased significantly as TS children got older. The importance of screening for behavior and emotional problems in TS children and adolescents should be emphasized.

153 Clinical Experience of Childhood Hypertensive Encephalopathy over an Eight Year Period Mei-Hua Hu, MD; Huei-Shyong Wang, MD; Kuang-Lin Lin, MD; Jing-Long Huang, MD; Shao-Hsuan Hsia, MD; Ming-Liang Chou, MD; Po-Cheng Hung, MD; Meng-Ying Hsieh, MD;

Alex Mun-Ching Wong, MD

Hypertensive encephalopathy is uncommon in children. We reviewed the clinical courses, brain imaging findings and outcomes of 12 children with hypertensive encephalopathy over a period of 8 years. Post-streptococcal glomerulonephritis was the most common precipitating disease. The clinical findings included mental change, seizure, headache, nausea or vomiting, and blurred vision. Overall clinical outcome is good after prompt treatment.

159 Primary Gastric Diffuse Large B-cell Lymphoma

> Yu-Shin Hung, MD; Tung-Liang Lin, MD; Ming-Chung Kuo, MD; Tzung-Chih Tang, MD; Po Dunn, MD; Po-Nan Wang, MD; Jin-Hou Wu, MD; Hung Chang, MD;

Tseng-Tong Kuo, MD, PhD; Lee-Yung Shih, MD

We retrospectively analyzed the treatment outcomes of 88 patients with primary gastric large cell non-Hodgkin's lymphoma (PGL) in a single center. Our results showed that the most appropriate treatment for PGL was chemotherapy, which can preserve organ function, allows earlier treatment and produces the same outcome as surgical intervention.

# 167 Intravenous Ondansetron plus Intravenous Dexamethasone with Different Ondansetron Dosing Schedules during Multiple Cycles of Cisplatin-based Chemotherapy

Ping-Tsung Chen, MD; Chuang-Chi Liaw, MD

We compared the antiemetic efficacy of two ondansetron dosing schedules plus dexamethasone during multiple cycles of cisplatin-based chemotherapy. There was no difference in antiemetic efficacy between the two groups. It is efficacious and convenient to treat complete responders with a single dose of 8 mg ondansetron in subsequent cycles of chemotherapy.

#### 175 Prevalence of Snoring and Witnessed Apnea in Taiwanese Adults

Li-Pang Chuang, MD; Shih-Chieh Hsu, MD; Shih-Wei Lin, MD; Wen-Shan Ko, MD; Ning-Hung Chen, MD; Ying-Huang Tsai, MD

In total,  $4,0\overline{1}1$  Taiwanese individuals completed computer-assisted telephone interviews for this study of sleep-disordered breathing (SDB). The prevalence of snoring in these individuals was 51.9% (95% CI 51.13%-52.67%), 60.8% (95% CI 58.67%-62.93%) in males and 42.5% (95% CI 40.26%-44.74%) in females. The prevalence of witnessed apnea during sleep was 2.6% (95% CI 2.1%-3.1%), 3.4% (95% CI 2.6%-4.2%) in males and 1.9% (95% CI 1.28%-2.52%) in females. The prevalence of snoring and witnessed apnea was significantly higher in males than in females (p < 0.05). The prevalence of hypertension, cardiovascular disease, diabetes mellitus, arthritis and backache was higher in those who snored or had witnessed apnea than those without these symptoms (p < 0.05).

## Decreased Renal Parenchymal Density on Unenhanced Helical Computed Tomography for Diagnosis of Ureteral Stone Disease in Emergent Patients with Acute Flank Pain

Chen-Chih Huang, MD; Yon-Cheong Wong, MD; Li-Jen Wang, MD; Te-Fa Chiu, MD; Chip-Jen Ng, MD; Jih-Chang Chen, MD

Eighty-five emergency patients with acute flank pain underwent unenhanced helical computed tomography. There were significant differences in the decreased renal parenchymal density (DRD) of patients with ureteral stone disease (USD) and with no USD. When a DRD of ≥ 2.06 Hounsfield units was used as a cutoff point, both sensitivity and specificity for diagnosis of USD were higher than 75%.

## 190 Immediate Results of Percutaneous Coronary Intervention for Unprotected Left Main Coronary Artery Stenoses: Transradial versus Transfemoral Approach

Shu-Kai Hsueh, MD; Yuan-Kai Hsieh, MD; Chiung-Jen Wu, MD; Chih-Yuan Fang, MD; Ali A. Youssef, MD; Chien-Jen Chen, MD; Shyh-Ming Chen, MD; Cheng-Hsu Yang, MD; Hon-Kan Yip, MD; Mien-Cheng Chen, MD; Morgan Fu, MD; Cheng-I Cheng, MD

Few studies have compared the effectiveness of transradial percutaneous coronary intervention (PCI) for unprotected left main coronary artery (ULMCA) stenoses with that of transfemoral PCI. We compared the success rate and early outcomes of these two approaches. This study included 131 patients undergoing PCI: 116 patients underwent a transradial approach and fifteen underwent a transfemoral approach. Similar success rate was achieved in both groups, and transradial PCI had fewer major adverse cardiac events and a lower vascular complication rate. A transradial approach should be considered as an acceptable alternative to a transfemoral approach when performing PCI for ULMCA diseases.

#### CASE REPORTS

#### 201 Corticosteroid Pulse Therapy for Leprosy Complicated by a Severe Type 1 Reaction

Pei-Hsuan Lu, MD; Jing-Yi Lin, MD; Yi-Lun Tsai, MD; Yu-Zon Kuan, MD

A 24-year-old Vietnamese woman had borderline lepromatous leprosy complicated by a severe type 1 reaction. The reaction encompassed inflammation of the skin, eyes, liver, and hematologic and peripheral nerve systems. Systemic steroid pulse therapy played a vital role in therapy. The manifestations and the treatment of a type 1 reaction are discussed.

## 207 Successful Hemoperfusion and Plasma Exchange in Acute Hepatic Failure due to Snake Bile Intoxication

Shyh-Ming Hong, MD; Dar-In Tai, MD, PhD; Mai-Szu Wu, MD; Ja-Liang Lin, MD Snake gallbladder is a traditional Chinese medicine for arthritis and detoxification. Sporadic cases of toxic hepatic and renal injury from snake gallbladder have been reported. A 35 year-old man who was a hepatitis B surface antigen carrier developed acute hepatic failure after ingestion of snake gallbladder capsules for 6 weeks. The patient recovered after blood purification with hemoperfusion preceding plasma exchanges. In summary, we suggest blood purification procedures be done as soon as possible for snake gallbladder-related fulminant hepatitis due to its high mortality rate.

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