

# Chang Gung Medical Journal

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#### Erratum

Vol. 29 Issue 1 (January-February 2006)

P.30 Figure 1 (the upper left hand site: line 2) "IL-1BP" should be "**IL-18BP**"

Editorial office

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### REVIEW ARTICLE

#### 119 **Imaging of Neck Metastases**

Shu-Hang Ng, MD; Sheung-Fat Ko, MD; Cheng-Hong Toh, MD; Yao-Liang Chen, MD

Awareness of the presence of cervical nodal metastasis is important in treatment planning and in prognostic prediction for patients with head and neck cancer. CT and MRI are morphological imaging techniques which are not very accurate in detecting neck metastases. Positron emission tomography is functional imaging that is helpful for assessing metastases in lymph nodes that appear morphologically normal. Diffusion-weighted MRI, dynamic contrast-enhanced MRI, and nanoparticle-enhanced MRI are promising imaging technologies that have recently been exploited to enhance the detection of metastatic nodes.

### FORUM

#### 130 **Avian Influenza Virus: The Threat of A Pandemic**

Shih-Cheng Chang, PhD; Yi-Ying Cheng; Shin-Ru Shih, PhD

The 1918 influenza A virus pandemic caused a death toll of 40~50 million. Currently, because of the widespread dissemination of the avian influenza virus (H5N1), there is a high risk of another pandemic. Avian species are the natural hosts for numerous subtypes of influenza A viruses; however, the highly pathogenic avian influenza virus (HPAI) is not only extremely lethal to domestic avian species but also can infect humans and cause death. This review discusses why the avian influenza virus is considered the most likely candidate for the first flu pandemic of the 21st century.

### ORIGINAL ARTICLES

#### 135 **To Construct A Forecasting Model of the Anthropometric Chronic Disease Risk Factor Score**

Yi-Chou Chuang, MPH; Ming-Hsu Wang, MID; Ding-Hau Huang, MID;  
Chien-Hsin Yang, MBA; Jen-Der Lin, MD

We attempt to provide an anthropometric chronic disease risk factor score that will help people to visualize their health status. A simple linear regression model was used to illustrate health status via chronic disease risk factor scores. The results showed that chronic disease risk factor scores are useful for prescribing relevant medical treatment as well as for other research.

#### 143 **Finite Element Analysis of Biomechanical Interactions of A Tooth-Implant Splinting System for Various Bone Qualities**

Chun-Li Lin, PhD; Shih-Hao Chang, DDS, MS; Jen-Chyan Wang, DDS, MS

The aim of this study was to analyze the biomechanics in an implant-tooth splinting system for various bone qualities with different occlusal forces using finite element (FE) analysis. The simulated results indicated that bone stress/strain values increased with the reduction in bone quality. The implant, bone and prosthesis stresses were reduced once the occlusal forces on the pontic were decreased. This study suggests that implants connected to natural teeth should be used with caution in softer bone regions. Utilizing occlusal adjustment to minimize the occlusal loading force on the pontic could reduce the stress/strain values in the splinting system.

#### 154 **Comparison of Weight Changes in Patients Treated with Different Antidepressants: Clinical Experiences in Taiwanese Patients**

Jian-An Su, MD; Hin-Yeung Tsang, MD, PhD

This study examined weight changes in patients diagnosed with depression attending an out-patient's clinic who

were treated with different kinds of antidepressants. Twenty-seven patients taking Noradrenergic and Specific Serotonergic Antidepressant (NaSSA) and 20 taking Selective Serotonin Reuptake Inhibitors (SSRIs) completed this observational study. Weight changes did not differ significantly between the two groups following 24 weeks of treatment. However, patients who had never previously been treated with either SSRIs or NaSSA did exhibit significant weight gain. Patients should be informed of the possibility of weight gain before initiating either SSRI or NaSSA treatment.

**162 Scanning Laser Polarimetry for Measurement of Retinal Nerve Fiber Layer in Absolute, Advanced and Early Glaucoma**

Jen-Chia Tsai, MD; Hsueh-Wen Chang, PhD; Mei-Ching Teng, MD; Pei-Wen Lin, MD; Ing-Chou Lai, MD

We detected differences in retinal nerve fiber layer (RNFL) measurements in absolute, advanced and early glaucoma with scanning laser polarimetry (The Nerve Fiber Analyzer GDx). There were significant differences for some GDx parameters between early and advanced glaucoma, and between early and absolute glaucoma. No significant differences were demonstrated for any of the twelve GDx measurement parameters between absolute and advanced glaucoma cases. We suggest that for follow-up of progression of glaucoma, RNFL measurements using scanning laser polarimetry are more useful in the early stage than in the advanced stage.

**169 Concentration of Soluble P-Selectin and White Blood Cell Counts in Infarct Coronary Arteries in Patients with Acute Myocardial Infarction Differ from the Systemic Circulation**

Teng-Hung Yu, MD; Sarah Chua, MD; Cheng-I Cheng, MD; Wen-Hao Liu, MD; Cheng-An Chiu, MD; Cheng-Hsu Yang, MD; Chih-Yuan Fang, MD; Yuan-Kai Hsieh, MD; Chi-Ling Hang, MD; Wei-Chin Hung, MD; Yen-Hsun Chen, MD; Kuo-Ho Yeh, MD; Morgan Fu, MD; Hon-Kan Yip, MD

In this study, we investigated whether the concentration of sP-selectin and white blood cell (WBC) counts differed between the artery (ICA) and the systemic circulation after acute myocardial infarction (AMI). Blood samples for circulating sP-selectin and WBC counts were immediately obtained after vascular punctures in 72 patients with AMI of < 12 h undergoing primary percutaneous coronary intervention. The results demonstrated that the circulating sP-selectin and WBC counts were significantly higher in our patients than in healthy subjects (all *p* values < 0.0001). Furthermore, the sP-selectin and the WBC counts were markedly higher in ICA than in the systemic circulation of our patients (all *p* values < 0.0001).

**175 Dexamethasone Effectively Reduces Postoperative Nausea and Vomiting in A General Surgical Adult Patient Population**

Ming-Shan Chen, MD; Chian-Lang Hong, MD; Ham-See Chung, MD; Peter PC Tan, MD; Chih-Chung Tsai, MD; Han-Hsiang Su, MD; Chung-Hang Wong, MD

In this randomized, double-blinded, placebo-controlled study, we evaluated the prophylactic effect of dexamethasone on postoperative nausea and vomiting (PONV) in a general surgical adult patient population. A total of 700 adult patients undergoing general anesthesia were enrolled. Our results demonstrated that the prophylactic IV administration of 10 mg dexamethasone immediately before the induction of anesthesia was effective in preventing PONV in a general surgical adult patient population.

**182 Surgical Treatment of Acute Complete Acromioclavicular Dislocation: Comparison of Coracoclavicular Screw Fixation Supplemented with Tension Band Wiring or Ligament Transfer**

Wei-Ching Lin, MD; Chi-Chuan Wu, MD; Chun-Yi Su, MD; Kuo-Feng Fan, MD; I-Chuan Tseng, MD; Yi-Lee Chiu, MD

Sixty consecutive acute complete acromioclavicular (AC) dislocations were treated using coracoclavicular (CC) screw fixation supplemented with tension band wiring for the AC joint (group 1, *n* = 30) or coracoacromial (CA) ligament reconstruction (group 2, *n* = 30), respectively. Twenty-nine cases in group 1 with tension band wiring and 27 cases in group 2 with CA ligament reconstruction were followed-up for 12-47 (mean, 23.6) months. The range of operating times was 34-57 (mean, 46.3) minutes in group 1 verse 52-93 (mean, 83.4) minutes in group 2 (*p* < 0.001). The percentage of satisfactory outcomes was 86.2% in group 1 verse 88.9% in group 2 (*p* = 0.30). Loss of reduction of the AC joint was 13.8% (4/29) in group 1 verse 3.7% in group 2 (1/27) (*p* = 0.17).

**190 Indirect Reduction with Sliding Compression Screw Stabilization for Subtrochanteric Fractures**

Yu-Tun Hsu, MD; Chi-Chuan Wu, MD; Chun-Yi Su, MD; Kuo-Fun Fan, MD;  
I-Chuan Tseng, MD; Yi-Lee Cheou, MD

One hundred and thirty-one acute subtrochanteric fractures were treated by indirect reduction with sliding compression screw stabilization and classified into 4 groups to evaluate the success rate. One hundred and thirteen fractures were followed-up for 12~38 (mean, 22) months. The union rate was 94.7% (107/113), and the time period required before union occurred was 2.5~8 (mean, 3.8) months. No statistical differences were noted among the individual groups. Compared to other techniques, this is a feasible method for treating acute subtrochanteric fractures. However, its application is clearly limited by anatomical and biomechanical considerations.

## CASE REPORTS

**198 Precocious Puberty due to Human Chorionic Gonadotropin-Secreting Pineal Tumor**

Ho-Chang Kuo, MD; Jiunn-Ming Sheen, MD; Kuan-Sheng Wu, MD; Hsiu-Hui Wei, MD;  
Chih-Cheng Hsiao, MD

We present a 9-year-old boy with central precocious puberty and hydrocephalus caused by a human chorionic gonadotropin ( $\beta$ -hCG) secreting pineal tumor. He received radiotherapy and chemotherapy without surgical intervention. The tumor disappeared and there was no evidence of tumor recurrence at follow-up one year after treatment.

**203 Biliary Atresia Associated with Meconium Peritonitis**

Mei-Yung Chung, MD; Tan-Yung Ko, MD; Chung-Bin Huang, MD; Chiang-Hsuan Lee, MD;  
Chih-Sung Hsieh, MD

Biliary atresia associated with meconium peritonitis has been described by a few investigators. Here we present a case of malrotation with meconium peritonitis followed by biliary atresia and transient hypothyroidism during early infancy.

**207 Extracorporeal Life Support in Resuscitation for Acute Myocardial Infarction with Cardiogenic Shock**

Mon-Yue Wu, MD; Feng-Chun Tsai, MD

ECLS is effective in resuscitation of AMI with cardiogenic shock. ECLS restored the systemic perfusion rapidly and avoided further injury of organs, which resulted in a better outcome of the following coronary bypass surgery. We report our first case of ECLS in resuscitation of AMI with cardiogenic shock and the results were satisfactory.

**212 Retinal Neovascularization and An Angioma-like Lesion after Demarcation Photocoagulation for Rhegmatogenous Retinal Detachment**

Yi-Cheng Chen, MD; Chia-Yun Li, MD; San-Ni Chen, MD

We present a case of retinal neovascularization (RNV) and an angioma-like lesion occurring after demarcation photocoagulation for rhegmatogenous retinal detachment (RRD). A 20-year-old woman suffered from a retinal atrophic hole with localized shallow retinal detachment in the right eye. Laser photocoagulation was performed to wall off the area of detachment. Fifteen months later, RNV and an angioma-like lesion had developed in the previously detached retina. Treatment with laser photocoagulation might aggravate the ischemia of an area of retinal detachment and predispose the retina to formation of neovascularization and angioma-like lesion.

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