## **Chang Gung Medical Journal**

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### **REVIEW ARTICLES**

### 477 Anti-cancer Effects of *Phyllanthus urinaria* and Relevant Mechanisms

Sheng-Teng Huang, MD, PhD; Jong-Hwei S. Pang, PhD; Rong-Chi Yang, PhD

This report aimed to characterize the whole *Phyllanthus urinaria* (*P. urinaria*) plant, present the anticancer effects of *P. urinaria* both in vivo and in vitro, and explore relevant mechanisms. The anticancer activity of *P. urinaria* extract is mainly associated with down-regulation of telomerase activation and induction of apoptosis. In addition, *P. urinaria* also exhibits anti-angiogenic activity that is mediated, at least in part, by suppression of matrix metalloproteinase 2 (MMP-2) secretion and inhibition of MMP-2 activity through zinc chelation.

### 488 Current Status of Surgical Treatment for Hemorrhoids - Systematic Review and Meta-analysis

Jinn-Shiun Chen, MD, FACS; Jeng-Fu You, MD

Stapled hemorrhoidectomy (PPH) and Ligasure hemorrhoidectomy are newly developed methods for surgical management of hemorrhoids. A systematic review and meta-analysis of randomized, controlled trials showed that both PPH and Ligasure hemorrhoidectomy have shorter operation times, less postoperative pain, less urinary retention, and shorter times to return to normal activity than conventional hemorrhoidectomy.

### **ORIGINAL ARTICLES**

### 501 Down-regulation of Insulin-like Growth Factor I (IGF-I) in the Mouse Diaphragm during Sepsis

Meng-Chih Lin, MD; Sum Yee Leung, MD, PhD; Wen-Feng Fang, MD; Chien-Hung Chin, MD; Kian Fan Chung, MD, DSc

This study investigated the expression of insulin-like growth factor I (IGF-I) in diaphragmatic muscles in a murine model of sepsis induced by lipopolysaccharide (LPS). Male B57 mice were peritoneally injected with LPS and studied at different time-points. Diaphragm sarcolemmal damage and the expression of IGF-I, interleukin-1b (IL-1 $\beta$ ) and tumor necrosis factor- $\alpha$  in diaphragm tissue extracts were measured. Sarcolemmal damage in diaphragm myofibers from 24 h to 96 h after LPS injection was accompanied by a significant increase in IL-1 $\beta$  expression in the tissues while IGF-I levels were down-regulated. The body weights of the animals were also reduced, especially at 96 h. Further studies are needed to examine the mechanisms involved.

# 509 The Use of Simvastatin with Aromasin in An Ovariectomized Rat Model: Effects on the Skeletal System

Sung-Hsiung Chen, MD; Fong-Fu Chou, MD; Jih-Yang Ko, MD

Many studies have reported the potential positive effects of statins on bones. Aromasin is a drug used in the treatment of breast cancer, and it has a catabolic effect on the skeletal system. Our study aims to determine the effects of Aromasin and a combination of simvastatin and Aromasin on the bone mineral density (BMD) in a rat model. Rats were divided into 3 groups: the (1) control group; (2) Aromasin group; and (3) Aromasin plus simvastatin group. In the Aromasin plus simvastatin group, the BMD of both the lumbar spine and the left femoral bone increased significantly after 3 months of treatment. Statins may have therapeutic applications in the treatment of osteoporosis to counterbalance the adverse effects of Aromasin.

# 515 Comparison of Airway Hyperreactivity in Chronic Obstructive Pulmonary Disease and Asthma

Shieh-Ching Yang, MD; Bon-Yuan Lin, MS

We compared airway hyperreactivity (AHR) to methacholine challenge using a continuous tidal breathing method in 33 patients with chronic obstructive pulmonary disease (COPD) and 25 with asthma. The findings consisted of an increase in baseline respiratory resistance, a decrease in baseline respiratory conductance (Grs), a lower incidence of AHR, lower bronchial sensitivity (requiring a higher provocative dose), and lower bronchial reactivity

(slope of the Grs was less steep) in COPD compared with asthma. The authors conclude that AHR is common in patients with COPD, and it has different characteristics from that occurring in patients with asthma.

### 524 Relationships between Developmental Profiles and Ambulatory Ability in A Follow-up Study of Preschool Children with Spastic Quadriplegic Cerebral Palsy

Chia-Ling Chen, MD, PhD; Chung-Yao Chen, MD; Keh-Chung Lin, ScD; Kai-Hua Chen, MD; Ching-Yi Wu, ScD; Chu-Hsu Lin, MD; Wen-Yu Liu, PhD; Hung-Chih Hsu, MD

A follow-up study investigated the developmental profiles of preschool children with spastic quadriplegic cerebral palsy (SQ CP) with different ambulatory abilities, using development quotients (DQs) on the initial and final assessments. The DQ change indices (%) were calculated. The DQs of all developmental domains in the non-ambulatory group were lower than those in the ambulatory group on both assessments. As indicated by the DQ change indices, most DQs in the ambulatory group decreased slightly, whereas those in the non-ambulatory group decreased considerably. Developmental profiles in preschool children with SQ CP evolve with age depending on the degree of ambulatory function.

# 532 Characteristics of *Klebsiella pneumoniae* Bacteremia in Community-acquired and Nosocomial Infections in Diabetic Patients

Sung-Sheng Tsai, MD; Jui-Chu Huang, MD; Szu-Tah Chen, MD, PhD; Jui-Hung Sun, MD; Chih-Ching Wang, MD; Shu-Fu Lin, MD; Brend Ray-Sea Hsu, MD, PhD; Jen-Der Lin, MD; Shu-Yu Huang, BNSc; Yu-Yao Huang, MD, PhD

The medical and microbiological records of 193 diabetic adults were retrospectively reviewed to characterize the clinical presentations of community-acquired and nosocomial *Klebsiella pneumoniae* (*K. pneumoniae*) bacteremia. Significant differences in the risk factors, infection sites, and in-hospital mortality rate were identified. Although diabetes is a major risk for *K. pneumoniae* infection, the HbA<sub>1</sub>c level during the course of infection did not correlate with the mortality rate. Diabetic patients with pneumonia, leukopenia, cirrhosis, or a high serum creatinine ratio at admission faced the risk of a poor outcome.

### 540 The Electromyographic Responses of Paraspinal Muscles during Isokinetic Exercise in Adolescents with Idiopathic Scoliosis with A Cobb's Angle Less than Fifty Degrees

Yi-Ta Tsai, MD; Chau-Peng Leong, MD; Yu-Chi Huang, MD; Shih-Hua Kuo, MD;

Ho-Cheng Wang, MD; Hsiang-Chun Yeh, BS; Yiu-Chung Lau, MD

Forty-one healthy subjects and thirty-three subjects with idiopathic scoliosis were enrolled in a study of paraspinal muscle electromyography (EMG) activity during isokinetic flexion and extension exercise at 30°/s and 90°/s. The results revealed significantly higher root mean squares (RMS) of EMG in the dominant than the non-dominant medial paraspinal muscles (MPS) and lateral paraspinal muscles (LPS) of the lumbar region in healthy controls and subjects with smaller curves. In scoliosis subjects with larger curves, the EMG activities were significantly higher on the non-dominant (concave) than the dominant (convex) side of the thoracic region. No significant difference in the bilateral lumbar MPS and LPS was noted in this group.

### 551 Misdiagnosed Acute Appendicitis in Children in the Emergency Department

Yi-Jung Chang, MD; Hsun-Chin Chao, MD; Man-Shan Kong, MD; Shao-Hsuan Hsia, MD; Dah-Chin Yan, MD

This retrospective study was conducted to investigate clinical features of misdiagnosed appendicitis in a pediatric emergency department. We reviewed the records of 173 children with appendicitis diagnosed in the emergency department. Twenty-six (15%) were seen twice or more in the emergency department before appendicitis was diagnosed. Most patients whose diagnosis was misdiagnosed presented late at night, and had a shorter duration of symptoms, shorter hospital stays, fewer laboratory tests, and less diagnostic imaging. They had minimal findings on physical examination on their initial visits, and more frequently had appendiceal perforation by the time of the return visit.

### 558 Survival Impact of Initial Surgical Approach in Stage I Ovarian Cancer

Tzu-I Wu, MD; Chyi-Long Lee, MD, PhD; Pei-Ju Liao, MS; Kuan-Gen Huang, MD; Ting-Chang Chang, MD, MPH; Hung-Hsueh Chou, MD; Chin-Jung Wang, MD; Yung-Kuei Soong, MD; Swei Hsueh, MD; Chyong-Huey Lai, MD Initial laparoscopic intervention and a higher substage posted adverse overall and recurrence-free survival impacts on patients with stage I ovarian cancer. The detrimental effects of laparoscopic access may be related increasing to a higher substage as a result of intraoperative iatrogenic tumor rupture and decreased use of surgical staging. Well-protected tumor removal using a retrieval bag or colpotomy without tumor spillage into the abdominal cavity is crucial, and a frozen section is highly recommended if there is any abnormal solid or intratumoral papillary growth tissue within the ovarian tumor. A comprehensive staging laparotomy ought to be done as soon as possible once pathologic results identify malignancy.

#### 568 Operation Cancellation at Chang Gung Memorial Hospital

Wei-Che Sung, MD; An-Hsun Chou, MD, PhD; Chia-Chih Liao, MD; Min-Wen Yang, MD; Chee-Jen Chang, PhD

There were 61,855 operations scheduled in 2007 at Chang Gung Memorial Hospital; 229 were cancelled (0.37%). The mean age of the cancelled group was higher than the non-cancelled group. A positive correlation between the cancellation rate and American Society of Anesthesiologists physical status was found. Cancellations for outpatient surgery were most frequent, as were those for the ophthalmology department. Forty-seven cases were cancelled because of cardiovascular problems; 136 operations were done later after the original cancellation issues were addressed, while 11 were done under local anesthesia. Of all causes of cancellation 54.1% were avoidable. Medical teams must communicate better with patients and relatives, identify and treat relevant medical conditions, and make adequate preparations for surgery.

### CASE REPORTS

### 576 Severe Neuroleptic Malignant Syndrome: Successful Treatment with High-dose Lorazepam and Diazepam: A Case Report

### Meng-Chang Tsai, MD; Tiao-Lai Huang, MD

We report a patient with severe neuroleptic malignant syndrome (NMS) who was successfully treated with highdose lorazepam and diazepam. A 61 year-old man with bipolar I disorder experienced fever, muscle rigidity, tachycardia, and delirium following intramuscular injection of haloperidol and NMS was diagnosed. Supportive treatment included hydration and alkalinized fluids without dantrolene and dopaminergic agents. Scores on the Francis-Yacoub NMS rating scale were 55 on the first day and 0 at discharge. In conclusion, this is the first report of rapid relief of NMS with high-dose lorazepam and diazepam in a Taiwanese patient.

### 581 A Case of Phlebosclerotic Colitis with Involvement of the Entire Colon

#### Ming-Tsung Chen, MD; Sheng-Lan Yu, MD; Tzeng-Huey Yang, MD

Phlebosclerotic colitis is a rare type of ischemic colitis caused by obstruction of the veins in the intestinal wall and adjacent mesentery, most commonly in the ascending colon. We report a patient presenting with abdominal pain and diarrhea. Initial radiologic findings showed multiple threadlike calcifications in the region of the right side of the colon and transverse colon. Follow-up studies revealed calcification extending into the superior and inferior mesenteric veins. As noted in our patient, this disease may not be confined to the tributaries of the superior mesenteric vein. The entire colon may be involved in advanced disease.

#### 586 INSTRUCTIONS TO AUTHORS

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- 509 使用 Simvastatin 及 Aromasin 的藥物治療去除卵巢白老鼠的研究模式:骨骼系統的影響 陳松雄 周逢復 郭繼陽
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- 524 學齡前四肢痙攣型腦性麻痺兒童發展輪廓與行走能力之追蹤研究 陳嘉玲 陳仲堯 林克忠 陳凱華 吳菁宜 林衢序 劉文瑜 許宏志
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- 558 初始手術方式對第一期卵巢癌的存活影響 吳姿宜 李奇龍 廖珮茹 黃寬仁 張廷彰 周宏學 王錦榮 宋永魁 薛 綏 賴瓊慧
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- 581 靜脈硬化性大腸炎侵犯整個大腸病:病例報告 陳明聰 游勝嵐 楊增慧
- 586 長庚醫誌投稿須知