

Chang Gung Medical Journal

CONTENTS IN BRIEF

REVIEW ARTICLES

- 351 Non-traumatic Osteonecrosis of the Femoral Head – From Clinical to Bench**
Mel S. Lee, MD, PhD; Pang-Hsin Hsieh, MD; Chun-Hsiung Shih, MD; Ching-Jen Wang, MD
- 361 Surgical Management of Recurrent Nasopharyngeal Carcinoma**
Sheng-Po Hao, MD, FACS, FICS; Ngan-Ming Tsang, MD, DSc

ORIGINAL ARTICLES

- 370 Prediction of Major Complications after Isolated Coronary Artery Bypass Grafting: The CGMH Experience**
Chien-Chao Lin, MD; Meng-Yu Wu, MD; Feng-Chun Tsai, MD; Jaw-Ji Chu, MD; Yu-Sheng Chang, MD; Yoa-Kuang Haung, MD; Kuo-Sheng Liu, MD; Pyng Jing Lin, MD
- 380 The Application of Miniprobe Ultrasonography in the Diagnosis of Colorectal Subepithelial Lesions**
Tsung-Hsing Chen, MD; Chun-Jung Lin, MD; Ren-Chin Wu, MD; Yu-Pin Ho, MD; Chen-Ming Hsu, MD; Wei-Pin Lin, MD; Yu-Pin Tseng, MD; Cheng-Hsiung Chen, MD; Cheng-Tang Chiu, MD
- 389 Skin Grafting as A Salvage Procedure in Diabetic Foot Reconstruction to Avoid Major Limb Amputation**
Jiun-Ting Yeh, MD; Chih-Hung Lin, MD, FACS; Yu-Te Lin, MD
- 397 The Experience of Parathyroidectomy when Treating Primary Parathyroid Hyperplasia**
Ting-Min Hsieh, MD; Cheuk-Kwan Sun, MD, PhD; Fong-Fu Chou, MD
- 407 Comparison of Developmental Pattern Change in Preschool Children with Spastic Diplegic and Quadriplegic Cerebral Palsy**
Chia-Ling Chen, MD, PhD; Kai-Hua Chen, MD; Keh-Chung Lin, PhD; Ching-Yi Wu, ScD; Chung-Yao Chen, MD; Alice May-Kuen Wong, MD; Chia-Ying Chung, MD; Wen-Yu Liu, PhD
- 415 Factors Associated with Motor Speech Control in Children with Spastic Cerebral Palsy**
Chia-Ling Chen, MD, PhD; Keh-Chung Lin, PhD; Chia-Hui Chen, MEd; Chih-Chi Chen, MD; Wen-Yu Liu, PhD; Chia-Ying Chung, MD; Chung-Yao Chen, MD; Ching-Yi Wu, ScD
- 424 Treatment of Branch Retinal Vein Occlusion Induced Macular Edema in Treatment-naïve Cases with A Single Intravitreal Triamcinolone or Bevacizumab Injection**
Chih-Hsin Chen, MD; Yi-Hao Chen, MD; Pei-Chang Wu, MD, PhD; Yung-Jen Chen, MD; Jong-Jer Lee, MD; Ya-Chi Liu, MS; Hsi-Kung Kuo, MD

- 436** **Developmental Profiles and Mentality in Preschool Children with Prader-Willi Syndrome: A Preliminary Study**
Chien-Min Chen, MD; Chia-Ling Chen, MD, PhD; Jia-Woei Hou, MD, PhD;
Hung-Chih Hsu, MD; Chia-Ying Chung, MD; Shih-Wei Chou, MD, PhD;
Chu-Hsu Lin, MD; Kai-Hua Chen, MD
- 443** **Conscious Sedation Reduces Patient Discomfort and Improves Satisfaction in Flexible Bronchoscopy**
Yung-Lun Ni, MD; Yu-Lun Lo, MD; Ting-Yu Lin, MD; Yueh-Fu Fang, MD;
Han-Pin Kuo, MD, PhD
- 453** **Physcal Change after Tuberculous Osteomyelitis of the Long Bone in Children**
Hsuan-Kai Kao, MD; Wen-E Yang, MD; Hsin-Nung Shih, MD; Chia-Hsieh Chang, MD

CASE REPORTS

- 461** **Micropapillary Variant of Urothelial Carcinoma: A Report of 4 Cases and Literature Review**
Yuan-Tso Cheng, MD; Hau-Lun Luo, MD; Ming-Tse Sung, MD; Po-Hui Chiang, MD, PhD
- 466** **Long-term Survivors of Adult Rhabdomyosarcoma of Maxillary Sinus Following Multimodal Therapy: Case Reports and Literature Reviews**
Tsung-Han Wu, MD; Jen-Seng Huang, MD; Hung-Ming Wang, MD; Cheng-Hsu Wang, MD;
Kun-Yun Yeh, MD
- 472** **INSTRUCTIONS TO AUTHORS**

Chang Gung Medical Journal

CONTENTS

REVIEW ARTICLES

- 351 Non-traumatic Osteonecrosis of the Femoral Head – From Clinical to Bench**
 Mel S. Lee, MD, PhD; Pang-Hsin Hsieh, MD; Chun-Hsiung Shih, MD; Ching-Jen Wang, MD
 Non-traumatic osteonecrosis of the femoral head is the leading cause for the hip joint replacements in many Asian countries including Taiwan. The ultimate goal is the preservation of the involved hip. However, this is often challenging since the early diagnosis is difficult, the etiologies are miscellaneous, the pathogenesis is unclear, and the successful treatment is undetermined. As a consequence, this disease remains to be well-known but not fully-understood. This review is to provide an update of the progress from the clinical studies to the basic bench works on the natural history, risk factors, genetic predilections, diagnosis, staging, and miscellaneous therapeutic modalities.
- 361 Surgical Management of Recurrent Nasopharyngeal Carcinoma**
 Sheng-Po Hao, MD, FACS, FICS; Ngan-Ming Tsang, MD, DSc
 Recurrent nasopharyngeal carcinoma (rNPC) can be salvaged with skull base surgery. A multidisciplinary approach improves respectability in locally advanced disease and involves skull base or intracranial extension with reasonable morbidity and mortality. Multivariate analysis indicated that gender, parapharyngeal space involvement, surgical margin, and the modality of adjuvant therapy impact significantly on local control. The impact on survival is indicated by the dura or brain involvement, local recurrence and modality of adjuvant therapy. It is apparent that recurrent NPC patients who underwent surgery had a significantly better survival rate than the re-radiation therapy group.

ORIGINAL ARTICLES

- 370 Prediction of Major Complications after Isolated Coronary Artery Bypass Grafting: The CGMH Experience**
 Chien-Chao Lin, MD; Meng-Yu Wu, MD; Feng-Chun Tsai, MD; Jaw-Ji Chu, MD;
 Yu-Sheng Chang, MD; Yoa-Kuang Haung, MD; Kuo-Sheng Liu, MD; Pyng Jing Lin, MD
 This paper tried to establish a risk predicting model of major complications after coronary artery bypass grafting (CABG). The reliable EuroSCORE system was used to quantify the preoperative characteristics of each patient. This complication analysis could help surgeons choose the optimal method for patients with different preoperative risks and improve the quality of postoperative care.
- 380 The Application of Miniprobe Ultrasonography in the Diagnosis of Colorectal Subepithelial Lesions**
 Tsung-Hsing Chen, MD; Chun-Jung Lin, MD; Ren-Chin Wu, MD; Yu-Pin Ho, MD;
 Chen-Ming Hsu, MD; Wei-Pin Lin, MD; Yu-Pin Tseng, MD; Cheng-Hsiung Chen, MD;
 Cheng-Tang Chiu, MD
 Previously, colorectal subepithelial lesions were treated by surgical resection or managed by regular follow up with endoscopy or other types of imaging such as CT without obtaining pathologic information. Endoscopic ultrasonography (EUS) is widely applied for subepithelial lesions (SEL) of the esophagus and stomach. However, this technique is not widely used for SEL of the colon because of the limitations of conventional colonoscopic endosonography. Here, we introduce the miniprobe EUS which can overcome limitations of conventional EUS and can be performed more easily.
- 389 Skin Grafting as A Salvage Procedure in Diabetic Foot Reconstruction to Avoid Major Limb Amputation**
 Jiun-Ting Yeh, MD; Chih-Hung Lin, MD, FACS; Yu-Te Lin, MD
 The unstable and critical diabetic patients who want to preserve their infected and necrotic feet are an impossible mission. The patients were highly selected for the preservation of their feet. To avoid major limb amputation, the

preparation period was long and uneven. Patient might need toe amputation or partial foot amputation before reconstruction. Aggressive debridement and various other delicate techniques were carried out to remove the necrotic tissue and avoid bone and tendon exposure till the wound was rich in granulation. At that point an autologous skin graft was applied. We described the key points in the surgical intervention and discussed the basic principles associated with this aspect of diabetic patient care.

- 397 The Experience of Parathyroidectomy when Treating Primary Parathyroid Hyperplasia**
Ting-Min Hsieh, MD; Cheuk-Kwan Sun, MD, PhD; Fong-Fu Chou, MD
Of fourteen patients undergoing parathyroidectomy for primary parathyroid hyperplasia, eleven received subtotal parathyroidectomy (SP) and three underwent total parathyroidectomy (TP). They were available for clinical evaluation at a median of 98 months after first surgery. Seven SP patients received neck re-explorations and one TP patient underwent forearm graft partial excision for disease recurrence. The 10-year recurrence-free rate was 45% after first surgery. There were significant improvements in both serum calcium and parathyroid hormone levels after re-operation in the eight recurrent cases. However, of the seven patients with neck re-exploration, six developed temporary postoperative hypocalcemia and four sustained recurrent laryngeal nerve palsy because of difficulties during the surgical neck re-exploration. Due to high incidence of disease recurrence and morbidity from neck re-exploration, initial TP seems to be a better option than SP.
- 407 Comparison of Developmental Pattern Change in Preschool Children with Spastic Diplegic and Quadriplegic Cerebral Palsy**
Chia-Ling Chen, MD, PhD; Kai-Hua Chen, MD; Keh-Chung Lin, PhD; Ching-Yi Wu, ScD; Chung-Yao Chen, MD; Alice May-Kuen Wong, MD; Chia-Ying Chung, MD; Wen-Yu Liu, PhD
A longitudinal study compared the change of developmental patterns in children with spastic diplegic (SD) and quadriplegic (SQ) cerebral palsy (CP). Gross Motor Functional Classification System (GMFCS) levels were classified during the initial assessments, Development quotients (DQs) were evaluated on initial and final assessments. The DQ change indices (%) were calculated. Children with SQ had lower DQs in all developmental functions than those with SD on both assessments. The DQ distributions of developmental profiles were different between the two groups. Most DQs increased with age in children with SD; however, most decreased with age in children with SQ.
- 415 Factors Associated with Motor Speech Control in Children with Spastic Cerebral Palsy**
Chia-Ling Chen, MD, PhD; Keh-Chung Lin, PhD; Chia-Hui Chen, MEd; Chih-Chi Chen, MD; Wen-Yu Liu, PhD; Chia-Ying Chung, MD; Chung-Yao Chen, MD; Ching-Yi Wu, ScD
This study investigated the factors associated with motor speech control in children with spastic cerebral palsy (CP). Thirty-three children with spastic CP who were able to speak were classified into group A (diplegia or hemiplegia, n = 17) and group B (quadriplegia, n = 16). Each child received assessments of cognition, language, modified Verbal Motor Production Assessment for Children (VMPAC), speech intelligibility, CP subtype and Gross Motor Functional Classification System (GMFCS). Group A had better cognition and language function, higher modified VMPAC scores and better GMFCS levels than group B ($p < 0.05$). However, speech intelligibility showed no significant difference. Modified VMPAC scores were negatively related to CP subtype (adjusted $r^2 = 0.51\sim 0.63$, $p < 0.001$) and positively related with global language scores and full intelligence quotients (adjusted $r^2 = 0.55$, $p < 0.001$). These findings suggest that motor impairment severity, cognition and language functions are associated with motor speech control of children with CP.
- 424 Treatment of Branch Retinal Vein Occlusion Induced Macular Edema in Treatment-naïve Cases with A Single Intravitreal Triamcinolone or Bevacizumab Injection**
Chih-Hsin Chen, MD; Yi-Hao Chen, MD; Pei-Chang Wu, MD, PhD; Yung-Jen Chen, MD; Jong-Jer Lee, MD; Ya-Chi Liu, MS; Hsi-Kung Kuo, MD
Both intravitreal injection of triamcinolone acetonide (ivTA) and bevacizumab (ivBe) were effective in reducing central macular thickness and improving visual acuity when treating eyes with macular edema secondary to branch retinal vein occlusion (BRVO) in the short-term. However, ivBe treatment appears to be safer and less prone to adverse side effects such as ocular hypertension and cataract compared with ivTA therapy.
- 436 Developmental Profiles and Mentality in Preschool Children with Prader-Willi Syndrome: A Preliminary Study**
Chien-Min Chen, MD; Chia-Ling Chen, MD, PhD; Jia-Woei Hou, MD, PhD;

Hung-Chih Hsu, MD; Chia-Ying Chung, MD; Shih-Wei Chou, MD, PhD; Chu-Hsu Lin, MD; Kai-Hua Chen, MD

A majority of the children with Prader-Willi syndrome (PWS) have global developmental delay and mental delay. The aim of this study was to investigate the developmental profiles and mental assessments of preschool children with PWS. The developmental quotients (DQs) of all domains in the PWS group were lower than those of children from the typical development group ($p < 0.01$). Children with PWS had better DQs in the fine motor domain than in the gross motor domain and in the receptive language domain than in the expressive language domain; furthermore their verbal intelligence quotient (IQ) was better than their performance IQ and their mental developmental quotient (DI) was better than their psychomotor DI.

443 Conscious Sedation Reduces Patient Discomfort and Improves Satisfaction in Flexible Bronchoscopy

Yung-Lun Ni, MD; Yu-Lun Lo, MD; Ting-Yu Lin, MD; Yueh-Fu Fang, MD; Han-Pin Kuo, MD, PhD

This prospective case control study enrolled 44 non-sedated and 44 sedated patients who underwent flexible bronchoscopy (FB). Compared to non-sedated patients, those sedated via midazolam and alfentanil had less discomforts and lower verbal analogue scores (VAS, 0-10 scale) on scope insertion (3.5 [0-10] vs. 0 [0-5], $p < 0.001$), cough (5 [0-10] vs. 0 [0-5], $p < 0.001$), dyspnea (3 [0-10] vs. 0 [0-8], $p < 0.001$), pain (3 [0-10] vs. 0 [0-5], $p < 0.001$), and global tolerance of the procedures (5 [1-10] vs. 0 [0-9], $p < 0.001$). More sedated patients expressed willingness to return (70.5% vs. 36.4%, $p = 0.001$). Associated hypoxemic events were all transient. Therefore, conscious sedation during FB improves patient satisfaction despite manageable risks.

453 Physeal Change after Tuberculous Osteomyelitis of the Long Bone in Children

Hsuan-Kai Kao, MD; Wen-E Yang, MD; Hsin-Nung Shih, MD; Chia-Hsieh Chang, MD

Between January 1990 and December 2008, 19 patients with sustained tuberculous osteomyelitis of the long bone with physeal involvement were treated at our institute. The average age was 23.8 months. The patients were followed up for an average of 61.8 months. The most common site of infection was the distal femur (8 patients, 42.1%), followed by the proximal tibia (5 patients, 26.3%) and the distal tibia (3 patients, 15.8%). All patients received surgical treatment and antituberculosis therapy for at least 6 months. Even in cases with extensive surgical curettage through the physis, the growth plate maintained its function and gradually remodeled.

CASE REPORTS

461 Micropapillary Variant of Urothelial Carcinoma: A Report of 4 Cases and Literature Review

Yuan-Tso Cheng, MD; Hau-Lun Luo, MD; Ming-Tse Sung, MD; Po-Hui Chiang, MD, PhD

Micropapillary variant of urothelial carcinoma (MPUC) is an uncommon variant of urothelial carcinoma with high metastatic potential. The cases reported were associated with high grade and advanced stages of the disease at presentation and had a poor prognosis. Four patients were diagnosed with MPUC at our center. Three of the four patients were found to be in the advanced stages of the disease at the time of diagnosis. Although adjuvant chemotherapy was applied, two of them died of metastatic disease. Clinically, MPUC is far more aggressive than conventional urothelial carcinoma (CUC). MPUC should be diagnosed promptly and treated aggressively.

466 Long-term Survivors of Adult Rhabdomyosarcoma of Maxillary Sinus Following Multimodal Therapy: Case Reports and Literature Reviews

Tsung-Han Wu, MD; Jen-Seng Huang, MD; Hung-Ming Wang, MD; Cheng-Hsu Wang, MD; Kun-Yun Yeh, MD

Two adult patients with rhabdomyosarcoma of the maxillary sinus received multimodal therapy and have been free from any local recurrence or distant spread for over ten years. We believe that adequate surgical procedures, planned radiotherapy, aggressive chemotherapeutic agents and the best supportive care for complications may improve the prognosis of patients with this disease.

472 INSTRUCTIONS TO AUTHORS

長 庚 醫 誌

綜 說

- 351 股骨頭缺血性壞死的臨床與基礎研究進展
李炫昇 謝邦鑫 施俊雄 王清貞
- 361 外科手術治療局部復發鼻咽癌
侯勝博 曾雁明

原 著

- 370 冠狀動脈繞道手術後的致死性併發症之發生與預測：長庚經驗
林建兆 武孟餘 蔡峰鈞 朱肇基 張育生 黃耀廣 劉國聖 林萍章
- 380 細徑探頭內視鏡超音波在大腸直腸上皮病灶診斷之應用
陳聰興 林淳榮 吳仁欽 何玉彬 許振銘 林偉彬 曾育彬 陳正雄 邱正堂
- 389 自體皮膚移植來挽救糖尿病足以避免大肢體的截肢手術
葉俊廷 林志鴻 林有德
- 397 副甲狀腺切除術在治療原發性副甲狀腺增生的經驗
謝廷旻 孫灼均 周逢復
- 407 比較痙攣型雙邊麻痺與四肢麻痺腦性麻痺學前兒童之發展改變
陳嘉玲 陳凱華 林克忠 吳菁宜 陳仲堯 黃美涓 鍾佳英 劉文瑜
- 415 痙攣型腦性麻痺兒童語言動作控制的相關因子
陳嘉玲 林克忠 陳嘉惠 陳芝琪 劉文瑜 鍾佳英 陳仲堯 吳菁宜
- 424 玻璃體內單一注射 triamcinolone 或 bevacizumab 治療視網膜分支靜脈阻塞引起的黃斑水腫
陳志信 陳怡豪 吳佩昌 陳勇仁 李仲哲 劉雅琪 郭錫恭
- 436 患有小胖威利症候群的學齡前孩童其發展概況與心智狀況：初步研究
陳建旻 陳嘉玲 侯家瑋 許宏志 鍾佳英 周適偉 林衢序 陳凱華
- 443 意識鎮靜術有助於改善接受支氣管鏡檢查病患的滿意度
倪永倫 羅友倫 林定佑 枋岳甫 郭漢彬
- 453 兒童長骨結核性骨髓炎後生長板的變化
高軒楷 楊文一 施信農 張嘉獻

病例報告

- 461 微乳突變異之尿路上皮癌：四案例報告及文獻回顧
鄭元佐 羅浩倫 宋明澤 江博暉
- 466 成人上顎竇橫紋肌肉瘤患者接受多型式治療後可達到長期存活——病例報告及文獻回顧
吳宗翰 黃仁聖 王宏銘 王正旭 葉光揚
- 472 長庚醫誌投稿須知