

Chang Gung Medical Journal

CONTENTS IN BRIEF

REVIEW ARTICLE

- 385 **Parkinsonism Induced by Chronic Manganese Intoxication—An Experience in Taiwan**
Chin-Chang Huang, MD

FORUM

- 396 **Vitamin B₆ Related Epilepsy during Childhood**
Huei-Shyong Wang, MD; Meng-Fai Kuo, MD, PhD

ORIGINAL ARTICLES

- 402 **Isolation and Differentiation of Human Mesenchymal Stem Cells Obtained from Second Trimester Amniotic Fluid; Experiments at Chang Gung Memorial Hospital**
Hsiu-Huei Peng, MD; Tzu-Hao Wang, MD, PhD; An-Shine Chao, MD; Shuenn-Dyh Chang, MD
- 408 **Associations between Brain-derived Neurotrophic Factor G196A Gene Polymorphism and Clinical Phenotypes in Schizophrenia Patients**
Tiao-Lai Huang, MD; Chien-Te Lee, MD
- 414 **Conditions Affecting Treatment of Pterochantheric Osteomyelitis**
Chin-Hsien Wu, MD; Li-Jen Yuan, MD; Yi-Sheng Chan, MD; Alvin Chao-Yu Chen, MD; Mel S. Lee, MD, PhD; Steven Wen-Neng Ueng, MD
- 423 **Clinical Characteristics of Children with Learning Disorders in Taiwan**
Ya-Fen Huang, MD; Hsueh-Ling Chang, MD; Yu-Yu Wu, MD; Yu-Shu Huang, MD; Hsin-Yi Liang, MD
- 430 **Comparison of Outcomes of Velopharyngeal Surgery between the Inferiorly and Superiorly Based Pharyngeal Flaps**
Kachin Wattanawong, MD; Ying-Chien Tan, MD; Lun-Jou Lo, MD; Philip KT Chen, MD; Yu-Ray Chen, MD
- 437 **The Use of Charlson Comorbidity Index for Patients Revisiting the Emergency Department within 72 Hours**
Han-Yi Wang, MD; Ghee Chew, MD; Chia-Te Kung, MD; Kun-Jung Chung, MD; Wen-Huei Lee, MD
- 445 **The Association between Embrasure Morphology and Central Papilla Recession: A Noninvasive Assessment Method**
Li-Ching Chang, DDS, MS

CASE REPORTS

- 453 **Acute Unilateral Parotid Glands Enlargement Following Endotracheal General Anesthesia: Report of Two Cases**
Fu-Chao Liu, MD; Jiin-Tarn Liou, MD; Allen H. Li, MD; Hung-Jr Chiou, MD; Yuan-Ji Day, MD, PhD
- 458 **Dumbbell-shaped Hodgkin's Disease with Cauda Equina Compression Mimicking a Herniated Inter-vertebral Disc, A Case Report**
Jen-Chung Liao, MD; Tsai-Sheng Fu, MD; Wen-Jer Chen, MD; Shih-Ming Jung, MD

- 464 **INSTRUCTIONS TO AUTHORS**

Chang Gung Medical Journal

CONTENTS

REVIEW ARTICLE

- 385 Parkinsonism Induced by Chronic Manganese Intoxication—An Experience in Taiwan**
Chin-Chang Huang, MD

In this article, we give an overview of manganese-induced parkinsonism in Taiwan, including the clinical features, therapeutic responses, neuroimages and long-term follow-up studies during the past 20 years. We further differentiated between patients with typical manganese and Parkinson's disease. There is no strong evidence to support the controversial relationship between welding fumes and Parkinson's disease; however, further investigations are warranted.

FORUM

- 396 Vitamin B₆ Related Epilepsy during Childhood**
Huei-Shyong Wang, MD; Meng-Fai Kuo, MD, PhD

Four inborn errors of metabolism are known to affect vitamin B₆ concentrations in the brain. Patients with one of the above (pyridoxine phosphate oxidase deficiency) and some other unknown etiologies responded to pyridoxal phosphate (PLP) instead of pyridoxine. Since PLP is as inexpensive as pyridoxine, we suggest replacing PLP for the conventionally used pyridoxine when treating children with epilepsy.

ORIGINAL ARTICLES

- 402 Isolation and Differentiation of Human Mesenchymal Stem Cells Obtained from Second Trimester Amniotic Fluid; Experiments at Chang Gung Memorial Hospital**

Hsiu-Huei Peng, MD; Tzu-Hao Wang, MD, PhD; An-Shine Chao, MD; Shuenn-Dyh Chang, MD
We collected 50 samples of second-trimester amniotic fluid by amniocentesis. Amniotic fluid-derived mesenchymal stem cells were successfully isolated and cultured from six of the samples. Based on this experience, we estimate the efficacy of isolating mesenchymal stem cells from second-trimester amniotic fluid obtained by amniocentesis to be about 12%. The cells obtained could express the pluripotent stem cell-specific transcription factors octamer-binding protein 4 (Oct-4), as confirmed through reverse transcription-polymerase chain reaction (RT-PCR). Under specific culture conditions, amniotic fluid-derived mesenchymal stem cells could be successfully induced to differentiate into adipocytes and osteocytes, based on analysis of the products by RT-PCR and specific staining.

- 408 Associations between Brain-derived Neurotrophic Factor G196A Gene Polymorphism and Clinical Phenotypes in Schizophrenia Patients**

Tiao-Lai Huang, MD; Chien-Te Lee, MD

This study investigated the relationships between brain-derived neurotrophic factor (BDNF) G196A gene polymorphism and clinical phenotypes in schizophrenia patients in the Taiwanese population. During a 1-year period, 132 schizophrenic patients and 103 healthy controls were recruited. The results showed that the BDNF G196A genotypes and their allele distributions did not differ between patients with schizophrenia and healthy controls. However, there was a significant difference in BDNF G196A genotype distribution between schizophrenia patients with and without a suicide history. Further study with a larger number of samples is needed to prove these findings.

- 414 Conditions Affecting Treatment of Pertochanteric Osteomyelitis**

Chin-Hsien Wu, MD; Li-Jen Yuan, MD; Yi-Sheng Chan, MD; Alvin Chao-Yu Chen, MD; Mel S. Lee, MD, PhD; Steven Wen-Neng Ueng, MD

From 1984 to 1998, twenty-three cases of pertrochanteric osteomyelitis were treated with a two-stage protocol. Patients were classified as "successful" or "difficult" according to the number of operations. Only twelve of twenty-three (52%) cases were successfully managed and infection recurred in four (17.4%) cases at final follow-up. Cases managed with the two-stage protocol with difficulty were more likely to be younger ($p = 0.03$), have unstable fractures ($p = 0.003$) and have nonunions ($p = 0.027$). Success using the two-stage protocol was difficult. Initial fracture severity should be carefully assessed when devising a treatment protocol for pertrochanteric osteomyelitis.

423 Clinical Characteristics of Children with Learning Disorders in Taiwan
Ya-Fen Huang, MD; Hsueh-Ling Chang, MD; Yu-Yu Wu, MD; Yu-Shu Huang, MD; Hsin-Yi Liang, MD
Clinical studies of children with learning disorders (LD) in Chinese-speaking society are still very limited. To obtain the clinical picture of children with LD in Taiwan, medical records of 27 diagnoses-validated subjects were collected retrospectively. Most of the subjects were boys and the average age at diagnosis was 9.6 ± 2.0 years at school grade of 3.5 ± 1.9 . More than half (55.6%) of the subjects had two subtypes of LD (mostly reading disorder and disorder of written expression), while those with math disorders was relatively rare. The overall comorbid rate was 88.9%, and the most common comorbid disorder was attention-deficit/hyperactivity disorder (66.7%). Further studies are eagerly warranted.

430 Comparison of Outcomes of Velopharyngeal Surgery between the Inferiorly and Superiorly Based Pharyngeal Flaps
Kachin Wattanawong, MD; Ying-Chien Tan, MD; Lun-Jou Lo, MD; Philip KT Chen, MD; Yu-Ray Chen, MD
The outcomes of surgery using superiorly and inferiorly based pharyngeal flaps were compared with regard to the correction of velopharyngeal insufficiency. The outcomes of the velopharyngeal surgery were better in the group of patients who received the inferiorly based pharyngeal flaps. The complications were not significantly different between the two groups, and were all relatively mild.

437 The Use of Charlson Comorbidity Index for Patients Revisiting the Emergency Department within 72 Hours
Han-Yi Wang, MD; Ghee Chew, MD; Chia-Te Kung, MD; Kun-Jung Chung, MD; Wen-Huei Lee, MD
This study is to validate the use of the Charlson Comorbidity Index (CCI) for predicting admission of patients revisiting the Emergency Department (ED) within 72 hours. Of the 168 enrolled patients, 60 were admitted to a ward and 108 were discharged. We found the patients with high CCIs (≥ 2) have a higher admission rate ($p < 0.001$) and an increased adjusted odds ratio of admission (odds ratio 2.06; 95% confidence interval 1.14-3.75) than low CCI patients. CCI was well correlated with the admission possibility of patients revisiting the ED. More clinical management and discharge strategies should target those revisiting patients who have more comorbidities.

445 The Association between Embrasure Morphology and Central Papilla Recession: A Noninvasive Assessment Method
Li-Ching Chang, DDS, MS
The distance from bone crest to contact point is only the most frequently studied of the many factors that influence whether interdental papilla are present. There is an important need in esthetic dentistry to find the other risk factors for recession of the papilla. This study found the occurrence of central papilla recession to be significantly related to increased age, due to the age-related increase in distance between bone crest and contact point and the age-related decrease papilla height, especially in long-wide embrasure. Clinicians can use these findings to predict the risk of central papilla recession according to embrasure morphology.

CASE REPORTS

453 Acute Unilateral Parotid Glands Enlargement Following Endotracheal General Anesthesia: Report of Two Cases
Fu-Chao Liu, MD; Jiin-Tarnng Liou, MD; Allen H. Li, MD; Hung-Jr Chiou, MD; Yuan-Ji Day, MD, PhD
Acute parotid gland enlargement in association with general anesthesia is rare and has also been called anesthesia mumps. We present two patients who underwent lumbar spine surgery under general anesthesia and developed acute unilateral parotid glands enlargement on one side of the face. Sonography showed parotid gland inflammatory processes in both cases and parotid duct dilatation in one case. There were no complications or residual enlargement of the parotid gland in either of our two patients after conservative treatment.

458 Dumbbell-shaped Hodgkin's Disease with Cauda Equina Compression Mimicking a Herniated Inter-vertebral Disc, A Case Report
Jen-Chung Liao, MD; Tsai-Sheng Fu, MD; Wen-Jer Chen, MD; Shih-Ming Jung, MD
Hodgkin's disease may involve spine as a setting of the advanced disease. An initial manifestation of Hodgkin's disease in spine is extremely rare. We present a case of 16-year-old boy suffered from impending cauda equina syndrome due to dumbbell-shaped retroperitoneal Hodgkin's disease. He was successfully managed with surgery and adjuvant chemotherapy. The role of surgery is discussed and the importance of MRI in the early detection of a paraspinous mass is emphasized.

464 INSTRUCTIONS TO AUTHORS

長 庚 醫 誌

綜 說

- 385 慢性猛中毒導致巴金森症候群——台灣經驗
黃錦章

論 壇

- 396 維他命 B₆ 相關的兒童癲癇症
王輝雄 郭夢菲

原 著

- 402 自懷孕中期的羊水當中分離人類間葉幹細胞的效能——長庚醫院之經驗
彭秀慧 王子豪 趙安祥 張舜智
- 408 腦源神經滋養因子 G196A 基因多型性與精神分裂症臨床表徵之相關性研究
黃條來 李建德
- 414 股骨轉子骨間骨髓炎使用兩階段療程治療結果及預後因子探討
吳金獻 袁立仁 詹益聖 陳昭宇 李炫昇 翁文能
- 423 台灣學習疾患兒童的臨床特徵
黃雅芬 張學嶺 吳佑佑 黃玉書 梁歆宜
- 430 以蒂在上或蒂在下的咽瓣治療顎咽閉鎖不全的比較研究
Kachin Wattanawong Ying-Chien Tan 羅綸洲 陳國鼎 陳昱瑞
- 437 Charlson Comorbidity Index 在急診三日內回診的應用
王瀚儀 周義 龔嘉德 鍾昆融 李文輝
- 445 利用非侵入性方法研究牙間楔縫形態與正中牙間乳頭退縮之關係
張儷卿

病例報告

- 453 氣管插管全身麻醉後急性單側唾液腺腫大——二病例報告
柳復兆 劉錦棠 李漢倫 邱宏智 戴元基
- 458 啞鈴型哈杰金氏淋巴疾病壓迫脊髓馬尾，仿似椎間盤突出——病例報告
廖振中 傅再生 陳文哲 容世明
- 464 長庚醫學雜誌投稿須知