

Chang Gung Medical Journal

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REVIEW ARTICLES

- 1 Autosomal Dominant GTP Cyclohydrolase I (AD GCH 1) Deficiency (Segawa Disease, Dystonia 5; DYT 5)**
Masaya Segawa, MD
Segawa disease is an autosomal dominant dopa responsive dystonia caused by heterozygous mutation of the GCH 1 gene. This article reviews the clinical characteristics, laboratory findings, including neuroimaging and neuropathological and neurohistochemical findings, and pathophysiology.
- 12 Nitric Oxide and Carbon Monoxide, Collaborative and Competitive Regulators of Hypertension**
Ching-Yin Lee, MD; Mao-Hsiung Yen, PhD
Blood pressure is one of the vital parameters of the body that is normally maintained in homeostasis by a complex multifactorial mechanism mediating constriction or dilation of vessels. It is now generally recognized that nitric oxide (NO) and carbon monoxide (CO), two gasotransmitters synthesized by inducible NO synthase (iNOS) and heme-oxygenase-1 (HO-1) respectively, play important roles in the compensatory regulation of the blood pressure during the development of hypertension. Nonetheless, much remains elusive regarding how these two stress systems interact with each other. By dissecting the current findings in the literature, we will discuss possible theories about the dynamics and interplay of their actions.
- 22 Recent Advances in Radiofrequency Ablation in the Treatment of Hepatocellular Carcinoma and Metastatic Liver Cancers**
Shi-Ming Lin, MD
Hepatocellular carcinoma (HCC) and liver metastases are common cancers worldwide. Radiofrequency ablation (RFA) has been applied for local ablation in liver malignancy since 1990 and is widely accepted as an alternative to resection for small un-resectable or even resectable liver malignancies because of its high effectiveness, minimal invasiveness, and predictable ablation area. Recently, advances in RFA have focused on enlarging the ablation zone in a single RFA session or over a short duration. This review article will update results of RFA for HCC and liver metastasis and recent advances in RFA for liver malignancy.

ORIGINAL ARTICLES

- 33 The Role of HER2 in Metastatic Breast Cancer Treated with a Combination of Taxanes and Cisplatin**
Hung-Chih Hsu, MD; Hsien-Kun Chang, MD; Yung-Chang Lin, MD; Sheu Hseu, MD; Jen-Shi Chen, MD; Tsai-Shen Yang, MD; Hung-Ming Wang, MD; Wen-Chi Shen, MD
We reported on 90 metastatic breast cancer patients treated with taxanes/cisplatin. There was no association between HER2-positive status and the regimen of taxanes and cisplatin. Therefore, HER2 status is independent of a response to a taxanes/cisplatin combination and also not a prognostic factor for survival.
- 42 Evaluation of Differentially Expressed Genes by Shear Stress in Human Osteoarthritic Chondrocytes In Vitro**
Mel S. Lee, MD, PhD; Ming-Tsung Sun, PhD; See-Tong Pang, MD, PhD; Steve WN Ueng, MD; Su-Chin Chen, MBS; Tsann-Long Hwang, MD; Tzu-Hao Wang, MD, PhD
Osteoarthritis is related to stresses that alter cartilage metabolism and chondrocyte survival. This study used cDNA microarray to screen differentially regulated genes by shear stress and used quantitative real-time polymerase chain reaction for confirmation. It was found that shear stress (0.82 Pa) for 2 hours regulated genes related to cell proliferation-differentiation (TGF- β , acidic FGF), cell survival (CYP1B1, BCL2L3, TNFRSF11B, chemokine ligands, ADM), and matrix homeostasis (DCN, SDC2, MGP, WISP2). The gene expression patterns following shear stress show a high similarity to the reparative process of osteoarthritis chondrocytes. This study suggests a close interaction between shear stress and osteoarthritis.
- 51 Feasibility of Sentinel Lymph Node Biopsy in Multifocal/Multicentric Breast Cancer**
Yung-Feng Lo, MD; Yun-Chung Cheung, MD; Swei Hsueh, MD; Kung-Chu Ho, MD
This study evaluated the efficacy of sentinel lymph node (SLN) biopsy in patients with multifocal/multicentric (MF/MC) breast cancer. We retrospectively studied 158 breast cancer patients with pathologically proven lesions, 135 with unifocal and 23 with MF/MC breast cancer, who underwent SLN biopsy with backup axillary lymph node dissection from 2004 to 2006. The identification rate, sensitivity, accuracy, and false-negative rate for unifocal and MF/MC breast cancers were 94.8%, 92.6%, 98.4%, and 7.4%; and 100%, 100%, 100%, and 0%, respectively. No significant differences were observed between groups. This suggests that SLN biopsy for MF/MC breast cancer is feasible.

- 59 Acute Non-outbreak Shigellosis: Ten Years Experience in Southern Taiwan**
Chi-Hung Wu, MD; Li-Tung Huang, MD; I-Fei Huang, MD; Jien-Wei Liu, MD; Jin-Bor Chen, MD; Chi-Di Liang, MD; Kao-Pin Hwang, MD; Mao-Meng Tiao, MD
We conducted a retrospective study of the clinical and laboratory characteristics of shigellosis in southern Taiwan. There were no specific differences in the clinical presentations and laboratory data between adults and children. Resistance to trimethoprim-sulfamethoxazole and ampicillin was high. These drugs should be used cautiously in shigellosis and continued surveillance is necessary.
- 66 A Preliminary Investigation of the Association between Serum Uric Acid and Impaired Renal Function**
Yi-cheng Chen, MD, PhD; Chien-tien Su, MD; Sen-te Wang, MD; Hsin-dai Lee, MD; Shiyng-Yu Lin, MD
End-stage renal disease with hemodialysis incurs huge medical costs in Taiwan, and hyperuricemia is reported to correlate with chronic renal disease. To define a starting point for the early control of serum uric acid, we analyzed data from Taipei Medical University Hospital health center from January 2004 to December 2006. We found that controlling the serum uric acid level to < 6 mg/dL seemed to help in preventing the progression of renal disease.
- 72 Intraarterial Cisplatin and Intravenous Adriamycin in Nonmetastatic Osteosarcoma of the Extremities: A Single Institution Experience in Taiwan**
Tai-Jan Chiu, MD; Jun-Wen Wang, MD; Yi-Ju Chen, MD; Yeh Tang, MD; Cheng-Hua Huang, MD
For nonmetastatic osteosarcoma of the extremities, the optimal treatment now consists of multiagent neoadjuvant and adjuvant chemotherapy and limb-sparing surgical procedures. The degree of tumor necrosis after neoadjuvant chemotherapy is one of the most important prognostic indicators. Intraarterial cisplatin and intravenous adriamycin could possibly achieve a good initial tumor response and convert the response to an ultimate cure. In this study, we found that a combined infusion of intraarterial cisplatin and intravenous adriamycin in the neoadjuvant chemotherapy of primary nonmetastatic osteosarcoma of the extremities was as effective as the Cooperative German Austrian-Swiss Osteosarcoma Study Group (COSS)-86 regimen with fewer treatment-related complications and lower mortality.
- 81 Outcome of the L5-S1 Segment after Posterior Instrumented Spinal Surgery in Degenerative Lumbar Diseases**
Jen-Chung Liao, MD; Wen-Jer Chen, MD; Lih-Huei Chen, MD; Chi-Chien Niu, MD
A retrospective study was performed to evaluate the fate of the L5-S1 segment after posterior lumbar floating fusion in degenerative lumbar disease. One hundred eighty-one patients were enrolled into the study. Degenerative grading of the L5-S1 intervertebral disc was evaluated with the University of California at Los Angeles (UCLA) grading scale. Brodsky's criteria and the Oswestry disability index were used to evaluate functional results. The results showed no symptomatic inferior adjacent instability or symptomatic L5-S1 disc degeneration which required further L5-S1 fusion at a mean 5.1 years follow-up.
- 89 Results of Microendoscopic Discectomy Performed in the 26 Cases with a Minimum 3 Years Follow-up**
Shih-Sheng Chang, MD; Tsai-Sheng Fu, MD; Yen-Chiu Liang, NP; Po-Liang Lai, MD; Chi-Chien Niu, MD; Lih-Huei Chen, MD; Wen-Jer Chen, MD
Microendoscopic discectomy is less invasive than conventional open discectomy, but the long-term results are still debated. We followed 26 patients who received microendoscopic discectomy (MED) surgery from Dec 2001 to Dec 2003. The outcomes were evaluated by Japanese Orthopaedic Association scores, and other medical data were also collected and analyzed. Our results showed that this is an effective procedure but some complications should be of concern during the learning stage.

CASE REPORTS

- 98 Thymic Hyperplasia Following Successful Chemotherapy for Hodgkin's Lymphoma: Report of a Case**
Tung-Liang Lin, MD; Lee-Yung Shih, MD; Yu-Shin Hung, MD; Tseng-tong Kuo, MD, PhD
We report a 17-year-old boy with nodular sclerosing Hodgkin's lymphoma, who developed thymic hyperplasia 6 months after completion of chemotherapy. This case stresses the importance of accurate tissue diagnosis to avoid unnecessary and potentially harmful treatment for recurrent disease.
- 104 Klatskin Tumor with Spermatic Cord Metastasis: A Case Report**
Ying-Hsu Chang, MD; Cheng-Keng Chuang, MD, PhD; Kwai-Fong Ng, MD; Shuen-Kuei Liao, PhD
Metastatic spermatic cord tumor is extremely rare. We report a case of metastatic spermatic cord tumor from a common hepatic duct tumor (Klatskin tumor). A 38-year-old man presented with right scrotal enlargement and chronic testicular pain. He had a Klatskin tumor (cholangiocarcinoma) stage IIIa. Scrotal ultrasound revealed a moderate hydrocele with clean content. Incision biopsy of the spermatic cord revealed adenocarcinoma. The primary cholangiocarcinoma tumor and the spermatic cord tumor had identical histologic patterns. Klatskin tumor with spermatic cord metastasis was diagnosed. To our knowledge, this case represents the first such report in the literature.

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