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REVIEW ARTICLE

597 **Neuropathic Pain: Mechanisms and Treatments**

Long-Sun Ro, MD, PhD; Kuo-Hsuan Chang, MD

Many common diseases, such as postherpetic neuralgia, trigeminal neuralgia, diabetic neuropathy, spinal cord injury, cancer, stroke, and degenerative neurological diseases may produce neuropathic pain. Currently, treatment of neuropathic pain is still a challenge. Pharmacotherapies (antidepressants, antiepileptics) remain the basis of neuropathic pain management. However, patient satisfaction of the results of treatment of neuropathic pain is still disappointing. In order to provide better pain control, a mechanism-based approach in treating neuropathic pain should be familiar to physicians.

FORUM

606 **G6PD – An Old Bottle with New Wine**

Hung-Yao Ho, PhD; Mei-Ling Cheng, PhD; Daniel Tsun-Yee Chiu, PhD

The major role of glucose-6-phosphate dehydrogenase (G6PD) is to generate reduced nicotinamide adenine dinucleotide phosphate (NADPH), which is indispensable to reductive metabolism and maintenance of cellular redox homeostasis. Most advances in this field have been made in the pathophysiology of G6PD-deficient erythrocytes and the molecular characterization of different G6PD variants. Recently, numerous studies have shown the importance of G6PD in cell growth and development and disease progression.

ORIGINAL ARTICLES

613 **Circulating Levels of Soluble P-Selectin in Patients in the Early and Recent Phases of Myocardial Infarction**

Wen-Hao Liu, MD; Cheng-Hsu Yang, MD; Kuo-Ho Yeh, MD; Hsueh-Wen Chang, PhD; Yen-Hsun Chen, MD; Shyh-Ming Chen, MD; Cheng-I Cheng, MD; Chien-Jen Chen, MD; Teng-Hung Yu, MD; Wei-Chin Hung, MD; Chi-Ling Hang, MD; Chiung-Jen Wu, MD; Hon-Kan Yip, MD

Circulating levels of soluble (s) P-selectin in patients early after an acute myocardial infarction (AMI) remain unclear. Blood samples were prospectively collected from 53 consecutive patients undergoing coronary angiography 12 hours to 7 days (34 patients, group 1) after an AMI or 8 to 21 days after an AMI (19, group 2) as well as 30 risk control (group 3) and 20 healthy control subjects (group 4). The P-selectin level was not different between groups 1 and 2 ($p = 0.632$). However, sP-selectin levels were significantly higher in group 1 and 2 patients than in group 3 and group 4 subjects (all p values < 0.0001).

621 **Surgical Treatment of Spinal Pseudoarthrosis in Ankylosing Spondylitis**

Lih-Huei Chen, MD; Feng-Chen Kao, MD; Chi-Chien Niu, MD; Po-Liang Lai, MD; Tsai-Sheng Fu, MD; Wen-Jer Chen, MD

Eight patients with ankylosing spondylitis complicated with pseudoarthrosis were surgically treated and followed-up for at least 3 years. All had persistent back pain and progressive kyphosis. Anterior debridement and interbody fusion followed by posterior stabilization were performed in all patients. A posterior corrective osteotomy was additionally done in 3 patients whose kyphotic angle exceeded 45°. All patients with severe back pain obtained significant pain relief. On a visual analogue scale, there was an average improvement of 43 points for the clinical scores. Solid bony fusion was achieved in an average of 7.5 months, and the correction of the kyphotic angle averaged 18.6°. Surgical treatment can help exclude an infective origin and yield good results.

629 **Closed Femoral Nailing in Lateral Decubitus Position without a Fracture Table: A Preliminary Report of Fifteen Patients**

Hsien-Tao Liu, MD; I-Chun Wang, MD; Chung-Ming Yu, MD; Jau-Wen Huang, MD; Kun-Chung Wang, MD; Chih-Hwa Chen, MD; Steve Wen-Neng Ueng, MD

From December 2001 to November 2002, we consecutively performed closed intramedullary femoral nailing in 15 patients with low comminuted femoral shaft fractures in the lateral decubitus position without a fracture table. We used manual or joystick traction to approximate the fracture fragments and introduced a guide pin. Six femora underwent Küntscher nailing and nine femora underwent interlocking nailing. Nine procedures were completed via joystick traction and six were completed via manual traction only. All fifteen procedures were completed without any changes in the other operative methods. The mean operation time was 55 minutes for Küntscher nailing and 118.3 minutes for interlocking nailing.

636 Case Analysis of Purple Urine-Bag Syndrome at a Long-Term Care Service in a Community Hospital

Fu-Hsiung Su, BMBS; Shin-Yi Chung, RN; Mey-Huy Chen, RN; Mei-Ling Sheng, RN; Ching-Hao Chen, RN; Ya-Jung Chen, RN; Wen-Cheng Chang, RN; Lan-Ying Wang, RN; Kai-Yang Sung, MD

Purple urine-bag syndrome is a rare but distressing phenomenon, which often occurs among female patients experiencing chronic catheterization. In this report, we observe that PUBS is associated with female gender, constipation, alkaline urine, institutionalization, and the use of a plastic urinary catheter. *Providencia* var. spp. is an unusual microorganism isolated from this group of patients.

643 Detection of Gene Deletions in Children with Chondrodysplasia Punctata, Ichthyosis, Kallmann Syndrome, and Ocular Albinism by FISH Studies

Jia-Woei Hou, MD, PhD

Several important genes have been identified in the Xp22.3 region to be responsible for genetically heterogeneous diseases such as chondrodysplasia punctata, ichthyosis, Kallmann syndrome, and ocular albinism. In this study, molecular cytogenetic methods were used to detect the extent of gene deletions in patients with those disorders presenting as isolated entities or associated in various combinations. The existence of 2 or more diseases in the same individual indicates a contiguous gene syndrome (CGS), and FISH is a useful tool for detection of Xp-CGSs.

CASE REPORTS

651 Pyogenic Spondylitis Presenting with Skip Lesions

Po-Liang Lai, MD; Hsieh-Shong Leu, MD, MSc; Chi-Chien Niu, MD; Wen-Jer Chen, MD; Lih-Huei Chen, MD

We report on a 65-year-old man who presented with sudden paraplegia. Magnetic resonance imaging showed an infectious lesion at T9-T11 and another at L4-L5. The patient had a significant recovery after simultaneous thoracic and lumbar spinal surgeries. The current patient had pyogenic spondylitis with coexistent thoracic and lumbar lesions. This kind of skip lesion is common in spinal malignant metastasis, but rare in spinal infections. Awareness of the possibility of multiple lesions or skip lesions will facilitate the diagnosis and treatment of this condition.

657 Trisomy Chromosome (22)(q13.1-qter) as a Result of Paternal Inversion (22)(p11q13.1) Proved Using Region-Specific FISH Probes

Jia-Woei Hou, MD, PhD

A male infant with multiple congenital anomalies was found to carry the karyotype: 46, XY, rec(22)dup(22q)inv(22)(p11q13)pat. The duplicated segment(q13.1→qter), a result of paternal inversion (22)(p11q13.1), was proven using NOR-staining with region-specific FISH probes (D22S75/D22S39 and Mbc1).

662 Successful Treatment of Complicated Tracheobronchial Rupture Using Primary Surgical Repair

Ching-Yang Wu, MD; Tzu-Ping Chen, MD; Yun-Hen Liu, MD; Po-Jen Ko, MD; Hui-Ping Liu, MD

We report a 9-year-old boy who presented with subcutaneous emphysema, bilateral pneumothorax, pneumomediastinum, and respiratory failure. Prompt diagnosis of complex airway disruption facilitated surgical intervention. The patient was discharged in good condition 10 days after the operation. At 6 months of follow up, he had good health status and bronchoscopy showed good patency over the anastomotic region.

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