

Chang Gung Medical Journal

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SPECIAL EDITION: FEATURING OF RENAL TUBULOINTERSTITIAL DISEASE

- 2** **The Role of Proximal Tubular Cells in Interstitial Fibrosis: Understanding TGF- β 1**
Aled Phillips, BsC, MD, FRCP
With the realisation that the rate of progression of renal disease correlates with the degree of renal interstitial fibrosis, interest has focused on the role of resident cells such as proximal tubular cells (PTC) in its pathogenesis. Transforming growth factor β 1 (TGF- β 1) is well established as a mediator of fibrosis and in renal disease therapies aimed at antagonising its effects are considered as potential therapeutic targets for the future. In this article we highlight some of our experimental studies, which illustrate the complexity related to TGF- β 1 generation and highlight the importance of numerous independent regulatory mechanisms, which influence its biological activity in the renal interstitium.
- 7** **From Bedside to Bench Drug-induced Tubulointerstitial Disease Cyclosporine Nephropathy Study from Models of Cultured Renal Epithelial Cells**
Mai-Szu Wu, MD
Cyclosporine altered cell proliferation, ionic transport, nitrite oxide production, rennin-angiotensin system, and prostaglandins production in renal epithelial cultured cells. The alterations were correlative and interactive to each other. The comprehension of the effect of CsA in renal epithelial cells gives us more insight in understanding drug-induced renal tubulointerstitial disease.
- 17** **Expression and Function of CLC and Cystic Fibrosis Transmembrane Conductance Regulator Chloride Channels in Renal Epithelial Tubule Cells: Pathophysiological Implications**
Alain Vandewalle, MD, PhD
This review summarizes the main findings on the function of the kidney-specific CIC-K1, CIC-K2 and CIC-5 Cl⁻ channels expressed in renal tubule cells, and on the role of the *cystic fibrosis transmembrane conductance regulator* (CFTR) Cl⁻ channel in electrogenic secretion of Cl⁻ elicited by vasopressin in the distal nephron.

ORIGINAL ARTICLES

- 26** **Correlations between Weight Changes and Lipid Profile Changes in Schizophrenic Patients after Antipsychotics Therapy**
Tiao-Lai Huang, MD; Chun-Yuan Lu, BS
During a period of 1 year, a total of 97 schizophrenia patients were enrolled in this study. The results of this study showed that most antipsychotic drugs showed increased weight changes and schizophrenia patients using clozapine might have negative correlations between weight changes and HDL changes during a very short period. However, due to the limitation of sample size, larger samples are needed to prove the results after controlling confounding factors.
- 33** **Weekly Paclitaxel in Women with Heavily Pretreated Metastatic Breast Cancer: A Retrospective Analysis of Cases Treated at the Chang Gung Memorial Hospital**
Chang-Hsien Lu, MD; Yung-Chang Lin, MD; Hsien-Kun Chang, MD
We retrospectively analyzed the characteristics and results of weekly treatment with paclitaxel (80 mg/m²) in heavily pretreated metastatic breast cancer patients at Chang-Gung Memorial Hospital. The overall response rate was 21.7% and the median time to progression was 121 days. Patients tolerated the treatment well without

obvious side effects. This could be considered a feasible regimen for salvage chemotherapy in the heavily pretreated patient population.

- 41 Clinical Significance of Muscular Deep-vein Thrombosis after Total Knee Arthroplasty**
Ching-Jen Wang, MD; Jun-Wen Wang, MD; Lin-Hsiu Weng, MD; Chung-Cheng Huang, MD; Pao-Chu Yu, MD
After total knee arthroplasty, venographic DVT was found in 49% (174 of 359) of patients, of which 91% had distal and 9% had proximal DVT. Fifty-two percent of the distal DVT involved the veins in the calf gastrocnemius and soleus veins and 54% involved the muscular branches and major leg veins. Patients with isolated muscular DVT showed comparable clinical symptoms, late DVT, thrombus propagation and no pulmonary embolism compared to patients with DVT in the major leg veins and combined DVT. Muscular DVT in the calf should be considered a significant clinical entity and treated accordingly.
- 47 Temperament of Juvenile Delinquents with History of Substance Abuse**
Hsueh-Ling Chang, MD; Sue-Huei Chen, PhD; Chien Huang, MS
We examined the usability of Cloninger's temperamental dimensions in the interaction between temperament, substance use and psychiatric disorder was examined in a sample of male, juvenile offenders with history of substance abuse. Novelty seeking positively correlated and harm avoidance inversely correlated to the amount of substance abuse in our study population. Subjects with history of childhood attention deficit and hyperactivity disorder (ADHD) were significantly younger, consumed less betel nuts, and had more siblings with history of drug abuse.
- 53 The Role of the Cuff Leak Test in Predicting the Effects of Corticosteroid Treatment on Postextubation Stridor**
Chih-Liang Wang, MD; Ying-Huang Tsai, MD; Chung-Chi Huang, MD; Yau-Kwang Wu, MD; Ming-Zhu Ye, RT; Hsiu-Min Chou, RT; Shih-Chun Shu, RT; Meng-Chih Lin, MD
One hundred and ten patients were enrolled for study of corticosteroid treatment for postextubation stridor. The incidence of postextubation stridor was 18.2%. Fifty-five percent of patients needed reintubation. Overall, 80% of patients with stridor improved with steroid treatment. The leak volume measured by the cuff leak test significantly increased and stridor did not recur in 64% of reintubated patients. A cut-off value of 88 ml leak volume predicted the occurrence of stridor. Female gender and a lower leak volume were risk factors for postextubation stridor. We conclude that corticosteroids improve postextubation stridor. The cuff leak test is a good method of monitoring for regression of laryngeal edema after steroid treatment.
- 62 Ground Reaction Force Patterns in Stroke Patients with Various Degrees of Motor Recovery Determined by Plantar Dynamic Analysis**
Chung-Yao Chen, MD; Paul Wei-Hsien Hong, PhD; Chia-Ling Chen, MD, PhD; Shih Wei Chou, MD, PhD; Ching-Yi Wu, ScD; Pao-Tsai Cheng, MD; Fuk-Tan Tang, MD; Hsieh-Ching Chen, PhD
Ground reaction force (GRF) patterns were categorized into four patterns based on the force magnitude (spatial features) through time (temporal features) of the vertical GRF. GRF patterns, correlated with walking speeds, indicate underlying motor control of hemiplegic or hemiparetic gait. Knee motor control may be the most important factor in determining walking performance. Plantar dynamic analysis could allow clinicians an alternative assessment in detecting gait changes and planning therapeutic strategies in stroke patients.
- 73 Proximal Femoral Megaprosthesis for Failed Total Hip Arthroplasty**
Shu-Tai Shih, MD; Jun-Wen Wang, MD; Chia-Chen Hsu, MD
Twelve patients (12 hips) with massive femoral deficiencies had reconstruction of the hip using proximal femoral megaprotheses. At an average follow-up of 5.7 years (range 3.3 to 9), eight patients (67%) had a satisfactory result, one was fair and three were poor. The complications included deep infection (33%), dislocation (42%), leg shortening > 3 cm (16.7%), ectopic ossification (8%), aseptic loosening (8%) and displacement of the greater

trochanter (25%). Massive proximal femoral deficiencies after total hip arthroplasty can be salvaged with megaprotheses if there is no other alternative. However, this technique presents complex problems with a high complication rate.

CASE REPORTS

81 **Abnormal Enlargement of Pituitary Gland during Pregnancy Remitted Spontaneously after Delivery**

Huan-Wen Chen, MD; Deng-Huang Su, MD; Huan-Wu Chen, MD; Chia-Hui Yang, MD; Ching-Chung Chang, MD, PhD

Physiological pituitary enlargement is usually asymptomatic. We present a woman who became pregnant after ovulation induction and then had a symptomatic enlargement of the pituitary gland in the second trimester. The pituitary enlargement remitted spontaneously after delivery but pituitary dysfunction appeared later. Possible pathophysiology is also discussed.

87 **Functional Visual Disturbance due to Hysteria**

Hui-Chun Lai, MD; Ken-Kuo Lin, MD; Meng-Ling Yang, MD; Henry Shen-Lih Chen, MD

A 23-year-old male complained of loss of peripheral visual field and everything having purple shadows in the afternoon. This had lasted for 3 years. The Goldmann perimeter and tangent screen examinations showed bilateral constricted tubular visual fields within the central 10° and steep margins. The cylindrical constricted tubular visual field, not cone-shaped, is a characteristic feature of hysteria. The mechanisms of hysteria, or conversion disorder, are still not clear. The tangent screen is useful in diagnosis. We suggest that ophthalmologists should treat patients with psychogenic symptoms, using suggestion, patience and reassurance.

92 **Interstitial Pneumonitis after Combination Therapy with Pegylated Interferon α -2b and Ribavirin for Chronic Hepatitis C**

Yung Che Chen, MD; Sheng-Nan Lu, MD, PhD; Meng-Chih Lin, MD

A 47 year-old woman who had chronic hepatitis C was treated with pegylated interferon α -2b in combination with ribavirin, with a good virological response by week 10 of therapy. Then the patient began to complain of dyspnea on exertion and a dry cough. A diagnosis of interstitial pneumonitis was made according to the results of chest X-rays, high resolution computed tomography and bronchoalveolar lavage analysis. She recovered after four weeks of prednisolone treatment.

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