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EDITORIAL

- 461 **Special Issue on Health Sciences**
MA Ashraf

ORIGINAL ARTICLES

- 462 **Nephroprotective Effect of the Leaves of *Aloe barbadensis* (Aloe Vera) against Toxicity Induced by Diclofenac Sodium in Albino Rabbits**
A Iftikhar, IJ Hasan, M Sarfraz, L Jafri, MA Ashraf
Aloe barbadensis can normalize oxidative stress and can be used as an effective nephroprotective agent against drug-induced nephrotoxicity.
- 468 **Protective Effects of Liquiritin on the Brain of Rats with Alzheimer's Disease**
X Huang, Y Wang, K Ren
Alzheimer's disease (AD) is clinically manifested by progressive memory damage and cognitive dysfunction. In this study, a rat AD model with liquiritin (LQ) interference was established to observe the effects of LQ on the AD rats' behavioural memory. The protective and antioxidant effects of LQ improved the rats' learning and memory ability.
- 473 **The Effect and Mechanisms of Proliferative Inhibition of Crocin on Human Leukaemia Jurkat Cells**
Y Sun, Z Wang, L Wang, L-Z Wang, C Zang, L-R Sun
Crocin promoted Jurkat cell apoptosis and inhibited cell growth in a dose-time-dependent manner. These

results suggest that crocin can be used as a suitable clinical agent for the treatment of T-lineage acute lymphoblastic leukaemia.

- 480 **Combining Diffusion Tensor Imaging and Susceptibility Weighted Imaging on the Substantia Nigra of 1-Methyl-4-Phenyl-1,2,3,6-Tetrahydropyridine (MPTP)-induced Rhesus Monkey Model of Parkinson's Disease**
Q Zhang, L Li, B Miao, H Niu
Combining the use of diffusion tensor imaging and susceptibility weighted imaging can provide a sensitive method for differentiating between MPTP-induced rhesus monkey model of Parkinson's disease and wild-type controls.
- 487 **Testosterone Level in Testicular Cancer Patients after Chemotherapy**
M Sarfraz, Y Ashraf, S Sajid, MA Ashraf
This study investigated the effects of chemotherapy on testosterone levels in testicular cancer patients. The hormone levels affected due to chemotherapy were differentiated from the effects of the tumour itself by comparing the hormone levels before the onset of chemotherapy to levels measured during and after completion of chemotherapy.

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495 Modified Numerical Simulation Model of Blood Flow in Bend

X Liu, X Zhou, X Hao, X Sang

The modified RNG $k-\epsilon$ model in bend can effectively improve the blood flow's numerical prediction accuracy affected by wall curvature effect, laying the foundation for further research on blood flow in bend.

499 Effect of Different Dialysis Methods on Cellular Immunity Function of Maintenance Haemodialysis Patients

L Xing

This study will provide theoretical support for deciding on the best method of blood purification which effectively improves cellular immune function of patients on maintenance haemodialysis. The results indicate that haemodialysis can briefly improve the cellular immune function of patients on maintenance haemodialysis.

506 Influence of Silver-hydroxyapatite Nanocomposite Coating on Biofilm Formation of Joint Prosthesis and Its Mechanism

L Zhao, MA Ashraf

*The main reason for biomaterial-related refractory infections is biofilm formation caused by bacterial adhesion on the surface of materials. Silver-hydroxyapatite (Ag/HA) nanocomposite coating can inhibit the formation of biofilm, but its mechanism is not clear. In this study, we will determine the amount of biofilm on the Ag/HA composite coating, detect the sustained release rates of silver ions in simulated body fluid, the effects on the biofilm formation of bacteria and the expression of genes related to biofilm formation of *S aureus*.*

514 Can the Medical-nursing Combined Care Promote the Accessibility of Health Services for the Elderly in Nursing Home? A Study Protocol of Analysis of the Effectiveness Regarding Health Service Utilization, Health Status and Satisfaction with Care

J Bao, X-J Wang, Y Yang, R-Q Dong, Z-F Mao

This article introduces the study protocol exploring the effectiveness of medical-nursing combined care in China regarding health service use, health status and service satisfaction in a population of the elderly living in nursing homes.

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521 Design of the Hospital Integrated Information Management System Based on Cloud Platform

L Aijing, Y Jin

The outdated information management style has become the bottleneck of hospital's management and development. Hospital integrated information management system based on cloud platform software can optimize integration of hospital information resources and improve the level of standardized management. Meanwhile, the use of the cloud platform will reduce the hospital's investment in hardware and software.

REVIEW

527 Recent Progress for the Utilization of *Curcuma longa*, *Piper nigrum* and *Phoenix dactylifera* Seeds against Type 2 Diabetes

T Khaliq, M Sarfraz, MA Ashraf

Diabetes mellitus is a chronic metabolic disorder which has become a global epidemic. About 60% of the world's population uses traditional medicines derived from medicinal plants. In this review, turmeric, black pepper and date seeds are evaluated for their antidiabetic effects.

DENTAL FORUM

533 A Preliminary Research into Clinical Semi-permeability Tolerance in the Field of Dental Rehabilitation

H Xia, F Xiong

Porcelain samples with different transmissivity were used to study clinical semi-permeability tolerance level in the field of dental restoration. When the transmissivity of the control porcelain plates is 6.032%, the upper and lower limit of clinical semi-permeability tolerance is 3% and 1%, respectively. The results can be helpful in prosthodontic reconstruction of natural teeth.

CASE REPORTS

540 Successful Treatment of Cerebral Aspergillosis in a Patient with Acquired Immune Deficiency Syndrome

J Luo, X Wang, Y Yang, T Lan, MA Ashraf, Q Mao

543 Paroxysmal Sympathetic Hyperactivity in a Child with Tuberculous Meningitis: A Case Study and Review of Related Literature

Y Xu, L Wan, J Ning, W Guo, L Ren

