

clinical symptoms, liver and kidney functions, the blood gas analysis and inflammatory factors were compared before and after treatment.

Results: Both groups of children with application of internal positive support comprehensive treatment to disease, liver and kidney function, inflammation index was improved, the body's internal environment is improved ($P < 0.05$), but dialysis group 19 cases in internal medicine comprehensive treatment on the basis of using PE + HP + CVVHDF after treatment, 100% cure rate ($P < 0.001$, vs. control group 55.5%); dialysis group of liver and kidney function, inflammation indexes back to normal ($P < 0.01$ vs. control group), the internal environment is completely correct.

Conclusion: When toadstool poisoning causes liver and kidney function failure, on the basis of conventional treatment, early application of miscellaneous renal replacement therapy, the large, medium and small molecules are able to remove toxins, can greatly improve the success rate and shorten the course of the disease.

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0359

Comparison of Clinical Efficacy of AIPD and CRRT on Toadstool Poisoning and Acute Kidney Injury in Children

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Objective: To compare the acute intermittent peritoneal dialysis (AIPD) and sustained venovenous hemodialysis/filtration (CRRT) for treatment of mushroom poisoning in children.

Methods: Selected from September 2009 to December 2014, in Guizhou Province People's Hospital, the ICU hospitalized toadstool poisoned children in 20 cases, aged from 2 to 14 years, AIPD group ($n = 8$) and CRRT group ($n = 12$), the retrospective analysis of serum creatinine (SCR), blood urea nitrogen (BUN), carbon dioxide combining force changes (co2cp), potassium (K⁺), C-reactive protein (CRP), alanine aminotransferase (ALT), aspartate aminotransferase (AST), and recovery rate of the renal function of the patients, 30 day mortality and average daily dialysis cost.

Results: AIPD group and CRRT group with age, gender, onset time and disease symptoms were not different ($P > 0.05$). The difference in BUN, Scr did not change after dialysis ($P > 0.05$). Two groups of children in the recovery of kidney function and the proportion of survivors had no significant difference ($P > 0.05$). But in 41.7% CRRT patients with dialysis-related complications, significantly higher than that of group PD ($P < 0.05$). The average daily cost of dialysis patients in the CRRT group was (4220.94 ± 80.32), significantly higher than the PD group (821.27 ± 88.9; $P < 0.05$).

Conclusion: AIPD with CRRT in the treatment of severe mushroom poisoning curative effect quite, but the PD technique more simple and economic, should be one of as Chinese toadstool poisoning children preferred dialysis modality.

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Ratio of CRP to Albumin Levels Predict Unfavourable Prognosis in Patients with Acute Kidney Injury

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Objective: Many studies suggest that inflammation and malnutrition play a pivotal role in acute kidney injury. However, at present, there still lack a comprehensive indexes to predict unfavourable prognosis in AKI patients, so our study combination of inflammatory marker (CRP) and nutritional marker (Alb), to evaluate whether C-reactive protein to albumin ratio was associated with unfavourable prognosis in AKI patients.

Methods: A total of 348 AKI patients were analysed between 2013 and 2014. Mean age of patients was 63 ± 18 years. They were divided into two groups: survivors ($n = 320$) and nonsurvivors ($n = 28$). The etiologic causes (prerenal, renal, postrenal), clinical characteristics (age, gender, hypertension, diabetes), biochemical parameters (CRP, Alb, haemoglobin, white blood cells, fibrinogen, total cholesterol and triglycerides) and dialysis were retrospectively analysed in those patients.

Results: Of the 348 patients, 165 were male and 183 were female. The causes of AKI were found to be 52.6% prerenal ($n = 183$), 34.8% renal ($n = 121$), and 12.6% postrenal ($n = 44$); there were no significant differences. The nonsurvivors group had significantly higher levels of CRP (42.3 ± 18.1 mg/L vs. 37.2 ± 9.3 mg/L; $p = 0.012$) and CRP/Alb (15.8 ± 5.3 vs. 11.7 ± 3.1; $p < 0.001$), also had lower levels of albumin (3.0 ± 0.4 g/L vs. 3.1 ± 0.2 g/L; $p = 0.023$) and haemoglobin (113.4 ± 10.5 g/L vs. 116.2 ± 6.2 g/L; $p = 0.033$). There were no significant differences in clinical characteristics, dialysis and other biochemical parameters between the two groups. Multivariate analysis revealed that CRP/Alb was independently associated with unfavourable prognosis (OR = 1.915, 95% CI 1.072–2.298).

Conclusion: Higher level of the ratio of CRP to albumin was associated with unfavourable prognosis of AKI patients, the prediction effect of the ratio of CRP to albumin is superior to CRP or Alb used separately.

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Protective Role of L3mbtl2 in Cisplatin-induced Acute Kidney Injury

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Lethal(3) malignant brain tumour like 2 (L3mbtl2) is a polycomb group protein, and it plays a role in transcriptional repression and chromatin compaction. A previous study demonstrated that L3mbtl2 is essential for early embryonic development. L3mbtl2 is expressed in many organs including the kidney. However, the role of L3mbtl2 in adult kidney is still undefined. In the present study, we first showed that L3mbtl2 was highly expressed in renal tubular epithelial cells in mice. We then generated kidney epithelial cell specific L3mbtl2 knockout mice (L3mbtl2 cKO) by crossbreeding floxed L3mbtl2 mice with Ksp-Cre mice. The L3mbtl2 cKO mice were grossly normal with no apparent phenotypes found in the kidney under basal conditions. However, when the kidneys were subjected to Cisplatin-induced acute kidney injury (AKI), the kidneys of L3mbtl2 cKO mice were more severely injured compared to the kidneys of wild-type (WT) mice, as determined by the increased tubular necrosis and cast formation, and increased serum creatinine levels. Furthermore, kidneys of L3mbtl2 cKO mice exhibited increased numbers of phospho-histone H2A.X-positive cells and decreased numbers of Ki-67 positive cells compared with those of WT mice, suggesting that deletion of L3mbtl2 promoted DNA damage and inhibited cell proliferation during Cisplatin-induced AKI. Consistent with the increased necrosis, expression of Ripk3, and Mkl1, the two key regulators of programmed necrosis, also was up-regulated in L3mbtl2 cKO kidneys. In addition, mRNA levels of the proinflammatory cytokines TNF- α and MCP-1 were higher in L3mbtl2 cKO kidneys than in WT kidneys. These results suggest that L3mbtl2 protects the kidney from tubular injury and inflammation in AKI. The molecular mechanisms underlying the protective role of L3mbtl2 are still under active investigation.

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0378

Involvement of Hippo Pathway in Regeneration and Fibrogenesis After Ischemic Acute Kidney Injury: YAP is the Key Effector

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Background: Renal tubule cells can recover after these cells undergo acute kidney injury (AKI). An incomplete repair of renal tubule can result in progressive fibrotic chronic kidney diseases. Studies have revealed the relationship between tubular epithelial cells and kidney fibrogenesis; however, underlying mechanism remains unclear.

Methods: Hippo pathway components were evaluated in complete/incomplete repair of ischemia/reperfusion AKI rat models, HK-2 cells and AKI human renal biopsy samples.

Results: We found that expression levels of the Hippo pathway components dynamically changed during kidney regeneration and fibrogenesis in rat models of ischemia/reperfusion (I/R)-induced AKI and human renal biopsy samples. The transcription co-factor yes-associated protein (YAP) might be a key effector of renal regeneration and fibrogenesis. Our results further

showed that YAP might elicit both beneficial and detrimental effects on I/R AKI. After I/R injury occurred, YAP could promote the repair of the injured epithelia; the constant increase and activation of YAP might be related to interstitial fibrosis and abnormal renal tubule differentiation.

Conclusion: These results indicated that a proper modulation of the Hippo pathway, specifically the transcript co-factor YAP, during repair might be a potent therapeutic target in AKI-to-chronic kidney disease transition after I/R injury.

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