

论著

唾液尿素、肌酐、尿酸水平评估临床终末期肾病的透析效果

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摘要:

目的: 探讨终末期肾病(ESRD)患者血液透析前后唾液尿素(Urea)、肌酐(Cr)、尿酸(UA)水平的变化, 评估透析后Urea, Cr, UA的清除效果及临床应用价值。方法: 收集透析患者的唾液2 mL, 同时抽取动脉血2 mL, 在全自动生化分析仪上测定血清和唾液Urea, Cr, UA的含量。比较透析前后血清与唾液Urea, Cr, UA浓度, 分析其相关性, 计算透析前后唾液和血清Urea, Cr, UA的下降比率(RR)。结果: 透析患者血清与唾液Urea, Cr, UA水平高度相关(相关系数分别为0.909, 0.873, 0.901)。透析后血清和唾液中Urea, Cr, UA浓度比透析前显著降低(均 $P < 0.05$)。血清与唾液Urea, Cr, UA的RR值比较, 差异无统计学意义(均 $P > 0.05$)。结论: ESRD透析患者唾液Urea, Cr, UA的清除效果与血清高度一致, 有望替代血清Urea, Cr, UA水平来评估血液透析效果和监测患者肾功能。

关键词: 唾液 尿素 肌酐 尿酸 终末期肾病 血液透析

Evaluation of dialysis in patients with end-stage renal disease by salivary urea, creatinine and uric acid

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Abstract:

Objective: To explore the changes of saliva urea, creatinine (Cr), and uric acid (UA) before and after hemodialysis in patients with end-stage renal disease (ESRD), and to evaluate the clearing effect of Urea, Cr, and UA. Methods: Saliva and serum (2 mL) were collected from the dialysis patients. The concentrations of Urea, Cr, and UA in both samples were measured by biochemical analyzer. The concentrations of Urea, Cr, and UA in the saliva and the serum, and their correlation were analyzed. Before and after the hemodialysis, the reduction ratio (RR) of Urea, Cr, and UA in the saliva and the serum was calculated. Results: In ESRD dialysis patients, the levels of Urea, Cr, and UA in the saliva and the serum were highly correlated (correlation coefficients were 0.979, 0.973, and 0.948, respectively). The concentrations of Urea, Cr, and UA in the saliva and the serum before the dialysis were lower than those after the dialysis, with significant difference ($P < 0.05$). The RR of Urea, Cr, and UA in the saliva and the serum did not differ statistically ($P > 0.05$). Conclusion: The clearing effect of salivary Urea, Cr, and UA is similar to that of the serum. Saliva is expected to replace the serum to evaluate hemodialysis efficacy and monitor the renal disease in ESRD patients.

Keywords: saliva urea creatinine uric acid end-stage renal disease hemodialysis

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