

目的 研究维持性血液透析(MHD)红细胞生成素(EPO)抵抗患者pro-hepcidin与炎症反应和铁代谢的关系。方法 40例MHD患者为研究对象,其中20例EPO低反应和20例EPO正常反应。20例健康体检者为对照组。检测参试者的血红细胞计数(RBC)、血红蛋白(Hb)、网织红细胞计数(Ret)、红细胞比容(Hct)、血清铁蛋白(SF)、转铁蛋白(TF)、血清铁和总铁结合力、转铁蛋白饱和度(TSAT)(TSAT=血清铁/总铁结合力)、血清pro-hepcidin、血清超敏C反应蛋白(hs-CRP),并比较组间差异。Pearson相关法分析pro-hepcidin的影响因素。ROC曲线预测pro-hepcidin对EPO抵抗的价值。结果 MHD患者SF、血清pro-hepcidin、hs-CRP显著高于健康对照者( $P < 0.01$ ),TF显著低于健康对照者( $P < 0.05$ )。EPO抵抗患者血清铁蛋白、血清pro-hepcidin、hs-CRP明显高于反应正常的患者( $P < 0.01$ )。Pearson相关分析显示MHD EPO抵抗患者血清pro-hepcidin水平与血清铁蛋白( $r = 0.843, P = 0.000$ )和hs-CRP( $r = 0.695, P = 0.001$ )呈正相关。预测EPO抵抗的ROC曲线显示,pro-hepcidin、SF、hs-CRP曲线下面积分别为0.713、0.769和0.958。结论 EPO抵抗与炎症反应和铁代谢相关。血清pro-hepcidin、SF、hs-CRP有可能成为EPO抵抗的标志。

Objective To examine the association of pro-hepcidin with iron metabolism and inflammation in maintenance hemodialysis (MHD) patients with erythropoietin (EPO) resistance. Methods Forty MHD patients and twenty healthy controls were enrolled in the study. Among MHD patients, 20 were hyporesponsive to EPO therapy and 20 were normal responsive to EPO therapy. Complete blood red cell count (RBC), Hb concentration, hematocrit (Hct), reticulocyte count (Ret), and serum ferritin (SF), serum iron (Fe), total ironbinding capacity (TIBC), saturation rate of transferrin (TSAT), transferrin (TF), hyper-sensitive C-reactive protein(hs-CRP), pro-hepcidin were measured in all the patients and controls. Differences were compared between groups. Influencing factors were analyzed by Pearson correlation. Predicting value of pro-hepcidin was investigated by ROC curve. Results Serum levels of SF, pro-hepcidin and hs-CRP were significantly higher in MHD patients than those in healthy controls ( $P < 0.01$ ), while serum TF was lower in MHD patients ( $P < 0.05$ ). Serum levels of SF, pro-hepcidin and hs-CRP were significantly higher in EPO resistant patients as compared to normal responsive cases ( $P < 0.01$ ). Serum pro-hepcidin level was positively correlated with SF ( $r = 0.843, P = 0.000$ ) and hs-CRP ( $r = 0.695, P = 0.001$ ). In predicting EPO resistance, area under ROC curve of pro-hepcidin, SF and hs-CRP was 0.713, 0.769 and 0.958 respectively. Conclusions EPO resistance is correlated with inflammation and iron metabolism. Serum pro-hepcidin, SF and hs-CRP may be used as markers of EPO resistance in MHD patients.

"/>



中华肾脏病杂志®  
Chinese Journal of Nephrology

主管: 中国科学技术协会  
主办: 中华医学会  
编辑: 《中华肾脏病杂志》

首页 | 期刊介绍 | 编委会 | 投稿指南 | 期刊订阅 | 广告合作 | 联系我们 | English 文章

中华肾脏病杂志 » 2012, Vol. 28 » Issue (10): 752-756 DOI:

临床研究

最新目录 | 下期目录 | 过刊浏览 | 高级检索

## 血液透析红细胞生成素抵抗患者pro-hepcidin与炎症反应和铁代谢的关系

王蕾 关广聚 王功玲

DOI: 10.3760/cma.j.issn.1001-7097.2012.10.002作者单位: 250012济南, 山东大学第二医院肾内科(王蕾, 现在泰安市内分泌科)通信作者: 关广聚, Email: guangj@sdu.edu.cn

Association of pro-hepcidin with inflammation and iron metabolism in hemodialysis resistance

WANG Lei, GUAN Guang-ju, WANG Gong-ling.

Department of Nephrology, the Second Hospital, Shandong University, Jinan 250033, ChinaCorresponding author: guangj@sdu.edu.cn

摘要

图/表

参考文献(0)

相关文章 (15)