Effect of intravenous iron administration on anemia microinflammation and oxidative stress response in ESRD patients

WANG Gang
(Department of Nephrology, The Central Hospital of Huangshi, Hubei 435002, China)
[Foundation Project]: Hainan Medical University Scientific Research Fund Supported Project of the Journal (0020120011)
[Author]: WANG Gang (1969-), Male, Huangshi Hubei Province, Deputy Chief Physician, M. B., Tel: 13986579318, E-mail: 514094445@qq.com.
Received: 2011-10-17 Revised: 2011-10-27

View from specialist: It is creative, and of certain scientific and educational value.

[ABSTRACT] Objective: To explore the effect of intravenous iron administration on anemia microinflammation and oxidative stress response in ESRD patients. Methods: A total of 92 ESRD patients were randomly divided into intravenous iron administration group (group A), oral iron administration group (group B). Both groups were given rHuEPO except iron administration Results: The Hb, HCT levels in two groups were significant higher than those before treatment, dosage of rHuEPO was reduced (P<0.01), which was more significant in group A (P<0.05). The CRP, IL-6, MDA levels of the group A were higher than that before treatment, while rHuEPO level was lower, and there were significantly differences between the two groups (P<0.05). Conclusions: Intravenous iron administration is effective for treating of anemia in ESRD patients, it can decrease the dosage of rhuEPO administration, but may aggravate oxidative stress and inflammation.

[KEY WORDS] Hemodialysis; Anemia; Microinflammation