



Production of Interleukin- 10 in Serum and rythropoietin Sensitivity in ESRD Patients on Hemodialysis

Fadia M Attia*, Gamal A.Tawfik, Kalil A. Kalil and Mohamed F. Mossalam

* Clinical Pathology and Internal Medicine Departments, Suez Canal University, Faculty of Medicine, Egypt

Corresponding author, Fadia M Attia Associate professor of clinical and chemical pathology, Faculty of Medicine, Egypt, email address: fadiamostafa@gmail.com
Telephone: +20101862085; Fax +20643208543

Abstract:

Background: One of the clinical consequences of aberrant cytokines production in patients with end stage renal disease (ESRD) may be impaired erythropoiesis. Aim of the study: to determine the interleukin (IL)-10 levels in end stage renal disease patients on regular hemodialysis (HD) with good and poor response to recombinant human erythropoietin (Epo). **Subjects and Methods:** Two groups of ESRD-HD patients were evaluated; 48 high epo HD patients and 32 low epo HD patients were evaluated for some laboratory tests and Interleukin-10 by enzyme linkedimmunosorbant assay (ELISA). **Results:** The production of IL-10 is decreased in HD with low epo group than high epo group 32.4 ± 7.9 pg/ml versus 45 ± 6.9 pg/ml ($p < 0.001$). IL-10 level is well correlated with CRP, ESR, Ferritin, Epo dose, and EPO/Hb ratio in ESRD-HD patients.

Conclusion: These findings suggest that IL-10 is playing a part in affecting the response to EPO, even in the absence of any obvious infection or inflammatory condition.