Summary

The present study was carried out to investigate the immunological status of special category of patients who receive Hemodialys(HD) process at End-Stage Renal Disease (ESRD). The study groups (patients) include 82 regularly attending for HD units at AL-Diwaniya Teaching Hospital and AL-Hakeem Teaching Hospital in AL-Najaf AL-Ashraf during the period from November 2008 to August 2009 . The study include two control groups, the first group included(32) patients, (10) patients with renal disease with no renal impairment, and (22) patients with hepatitis B or C. The second group included (50) individuals who were apparently healthy). They are subjected to a questionnaire regarding many general variables. Blood samples collected and divided into two portions; the 1st for hematology and the second (serum) for biochemical and serology including IFN-γ and IL-8 assays using ELISA, in addition to screening for Hepatitis B and C infection. .

The duration of HD and frequency of dialysis / week have significant affect on the results of CRP, total WBC count, neutrophil and lymphocyte counts among other parameters.

The important results of serum were IFN-γ, IL-8(pg/ml) and CRP (mg/L) among the four study groups; the median concentration of IFN- γ in HD patients and renal disease (not failure) is zero, while it is 0.1 and 0.05 patients with hepatitis and healthy control, respectively. However the only significant difference is between the HD patients and group of patients with hepatitis B or C. Interleukin -8 seems to be have higher significant difference as it appeared at median concentration of, 24.1, 23.7, 86.9 and 104.1 in the four groups respectively. The CRP levels are significantly different among all the four study groups. The study screen for HB and HCV

demonstrated that 8.5% of HBV is among HD patients, fortunately no HCV infections, with no significant difference regarding other parameters.

The present study conclude the immunocompression status of HD patients as many parameters have been affected by the duration and frequencies of HD operations; in addition, IFN- gamma and IL-8 are good differential factors among the four study groups. Many other inflammatory mediators are recommended to be studied in the future.