

S U M M A R Y

Infection represents a major problem in patients with renal failure and uraemia. In attempting to define factors which may provide the basis for this clinical observations there appear to be multiple potential determinations. Among these could be included increased exposure to potential hazard of exogenous microbial agents in the hospital environment as well as defective host defense mechanisms. The later would include these immune mechanisms mediated through B-cell lines by the production of specific immunoglobulins and those mediated through T-lymphocytes and definided as cellular immunity.

The aim of this work to study the behaviour of the immune system in patients with chronic renal failure on haemodialysis and peritoneal dialysis for varying periods and to form an immunological profile for a patient with chronic renal failure on dialysis standing for renal transformation. ^{Plasma}

Our study was carried out on 30 patients

treated by haemodialysis or peritoneal dialysis for one month, 3 months and one year :

Group 1 : Fifteen Chronic Renal Failure Patients

treated with intermittent haemodialysis of average age 39 years and average serum creatinine before dialysis 13.5 gm.%.

Group 2 : Fifteen Chronic Renal Failure Patients

on intermittent peritoneal dialysis with average age 40 years and average serum creatinine 15.3 mg.%.

In addition to ten control cases also included.

The following tests were done for those patients :

A. Tests for Cellular Immunity

1. Delayed hypersensitivity skin tests :

- a. Purified protein derivatives (Tuberculin test).
- b. Dintro chlorobenzene (D.N.C.B.).

2. E. Rosette.

3. Active E. Rosette.

B. Tests for Humoral Immunity

1. Quantitation of B lymphocytes by immunofluorescent method.

2. Quantitation of immunoglobulin level (IgG, IgA and IgM) by radial immuno-diffusion method.

The results showed :

1. There was decreased number and function of T lymphocytes in uraemic patients comparable to normal controls in E. Rosette and active E. Rosette and skin tests. The number and function of T lymphocytes were not improved after haemodialysis at any time of the study. On the other hand it had been found that the number and functions of T lymphocytes were improved in E. Rosette, active E. Rosette and skin tests

after peritoneal dialysis. There was no improvement in parameters of humoral immunity either after haemodialysis nor peritoneal dialysis.

We concluded that there was marked depression of cellular immunity in chronic renal failure patients which is not affected by haemodialysis but improved after three months and one year of peritoneal dialysis. Humoral immunity in chronic renal failure patients were normal and not affected either by haemodialysis nor by peritoneal dialysis.

So uraemic patients prepared for kidney transplantation must be treated by haemodialysis because it does not affect cellular immunity.