Schistosomiasis had been a great problem in Egypt for thousands of years. There are many types of schistosomiasis, in our study here we dealt with only the intestinal type : Mansoni. Many antischistosomal drugs had been used, but lately : "Praziquantel, PZQ" proved to be a highly effective drug ; in killing the mature stage, reducing the egg count, decreasing complications and inducing potentiation of the immune system.

Cell-mediated immunity plays an important role in elevating the body resistance to the invading worms and also to reinfection; especially in older individuals. It was measured in our study by measuring the levels of some important cytokines, i.e., Interleukin-2 (IL-2) and Interferon-gamma (IFN-y). These two cytokines have a pivotal role in potentiation of the immune response, after treatment by PZQ, that is why they were discussed in details in our work.

We chose our patients from the "Outpatient Clinic" of the Internal Medicine Department, Faculty of Medicine - Benha University.

They were divided into two groups :

- **Group (1) :** Diseased individuals (30 cases).
- **Group (2) :** Healthy individuals (10 cases).

Later, according to stool examination and rectosigmoidoscopy with biopsies, the Group (1) cases, were divided into :

- **Group (1)-a :** Active S.mansoni (15 cases).
- **Group (1)-b :** Inactive S.mansoni (15 cases).

The levels of IL-2 & IFN--γ were measured for all cases, using the ELISA technique for PREDICTA IL-2 & IFN-γ kits.

Then, cases of Group (1)-a received PZQ, in the form of tablets, the dose of 40 mg/kg.bd .wt., taken once and three months later, a follow-up sigmoidoscopy with biopsies were performed for them and subsequently were divided into :

- ***Responders*** : Negative rectal snips (11 cases).
- ***Non-responders:*** Positive rectal snips (4 cases).

Then, IL-2 and IFN-y levels were measured and compared to the levels of the "Inactive S.mansoni cases" and those of the "Control cases" .

It was proved in this study, that Praziquantel had increased the levels of 1-2 &IFN-y in the "Active Schsitosoma mansoni group after treatment by PZQ", and thos levels came closer to the levels of the "Control group" - where there was a "Non-significant" difference between the 2 groups.

While there was a "Highly significant" difference between the "Active S. gp. after ttt" & "Inactive S. Gp." in the cytokines levels.

Though there was also a "Highly significant correlation" between IL-2 & IFN-γ in the "Active S.mansoni gp. after ttt by PZQ" , there was a "Non-signficant" difference between *the 2 subgroups: Responders & Non-responders to PZQ ttt* - regarding the level of IL-2 only.

While it showed a "Highly significant" difference in the levels of IFN-γ, ***leading to the impression that it was the IFN-y that might have played a major role in potentiating the immune system of the "Active S. gp. after ttt, after 3 months follow-up", much more than did IL-2.***

The "Active S. gp. after ttt" was subsequently divided into 2 subgroups, according to the response to PZQ; comprising 26.7% of cases (4), "Non-responders" comprising 73.3% of cases (11).

As regards sex factor and its interrelation with IL-2; there was a "Non-significant" difference between males and females in all studied groups. While in the case of IFN-γ, there was a "Significant" difference between males and females in the "Control group" alone.

Males showed higher IFN-y than females in this latter group.

As for age and its relation to IL-2, there was a "Highly significant" difference between cases - below & above 40 years of age. The cases below 40 years showed higher IL-2 levels.

While in relation to IFN-y, there was a "Significant difference" between the 2 age groups in the "Active S. gp. after ttt", with the cases over 40 years of age showing higher IFN-γ levels.

This issue-of resistance to reinfection and IL-2 & IFN-y levels response to treatment by PZQ-is controversial. Thus, most of the Egyptian and foreign authors proved similar results to ours and only quite a few did not notice the same.