

### SUMMARY

Scabies is one of the most important prevalent contagious diseases. It is caused by the itch mite "Sarcoptes scabiei".

The cellular and humoral response to scabies have been studied by several authors but with contradictory results. It is still not clear whether cell mediated or humoral mechanisms have an essential role in the occurrence of scabies manifestations. This work aimed to study the profile of human scabies in Benha area clinically and immunologically in the infected persons. The materials of this study was consisted of:

- 1- 200 scabietic patients diagnosed clinically and parasitologically.
- 2- Full history sheet for each patient.
- 3- 15 clinically free persons as normal controls.
- 4- All patients and controls were subjected to the following investigations.
  - a- Routine urin and stool analysis for 60 patients and 15 controls to exclude any other parasitic investigations.

b- Quantitation of serum immunoglobulins (G, M, A, and E) and complement ( $C_3$  and  $C_4$ ) by a single radioimmunodiffusion. This was done for 16 patients before and after treatment and normal (15) controls.

All scabiectic patients received treatment in the form of:

- \* Sulfur soap 10%.
- \* 5% sulfur *Precipitate in calamine lotion.*
- \* gamma benzen hexachloride.

Follow up was done for 16 patients three months after treatment.

From the history and clinical examination of 200 scabiectic patients we found the following:

- 1- 60% of the patients were females and 40% were males.
- 2- 85% of the patients were coming from rural areas while 15% only were coming from urban areas.
- 3- The ages of the patients were ranged from three months up to 70 years.
- 4- All the patients were complaining from nocturnal itching.

- 5- 79% of the patients gave positive history towards the presence of similar conditions among the members of the family.
- 6- Domestic animals were present in (64%) of the patients houses.
- 7- All patients showed papules, scratch markings and burrows.
- 8- 50 % of adult patients showed lesions on the wrists and web spaces.
- 9- 60.6% of the male patients showed lesions on the external genitalia.
- 10- 70% of the female patients showed lesions on the breast.
- 11- 13% showed nodules on the axilla, abdomen and scrotum.
- 12- 13% of patients showed pustular lesions.

From the laboratory results, we found the following:

- 1- The mean IgG level showed a highly significant increase in the patients group compared to the same group after treatment and to normal control groups.
- 2- IgM mean level showed a significant increase in patients group.

- 3- Mean serum IgA level showed significant decrease during infection.
- 4- Mean IgE showed significant increase in patients than controls and the same group after treatment.
- 5- C<sub>3</sub> and C<sub>4</sub> levels showed no significant changes in all groups.

### CONCLUSION

Mites has an effect on the immune system in the form of depression to IgA production . At the same time the secondary invaders may have an immunologically stimulating effect on IgG and IgM. The reagenic influence of the mites on IgE is not different from other parasites.  $C_3$  and  $C_4$  showed no changes during scabiectic infestation. Comperhansive cellular immunity studies must be taken together with the available results of humoral immunity changes. This may help to understand more the host-parasite relationship.

Scabies constitutes a problem in Qualyobia governorate. This may be due to misdiagnosis of the cases by the physician or the ignorance of the patients about the nature of the disease and the mode of treatment . So, it is recommended to inform the P.H. authorities about the problem of human scabies which increased in the last decade.