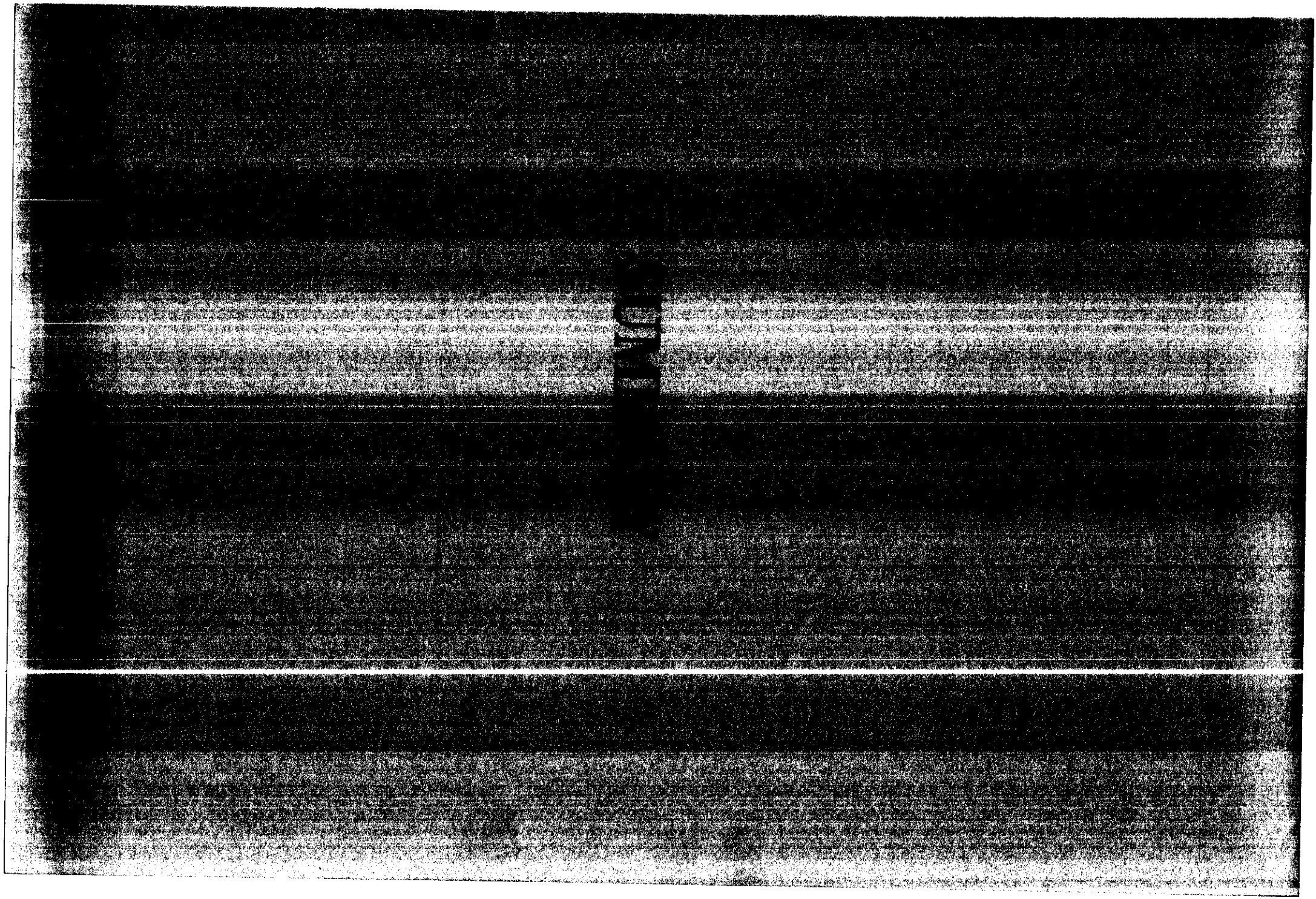

SUMMARY

Resistance to dermatophyte infections depends upon many factors. Some of these are specific and involve the immune system. Others are non specific and depend upon the nature of the stratum corneum, serum, complement and phagocytes (polymorphonuclear leukocytes and monocytes). The species of the fungus and the virulence of the organism are also important factors.

The aim of this study was to evaluate the role played by cell - mediated immune response in the pathogenesis of dermatophytes infection.

Sixty patients diagnosed clinically as dermatophytosis selected from Dermatology and Veneriology outpatient clinic of Benha University Hospitals. They were with different age, sex and clinical types of dermatophytosis. The patient were subjected to through clinical examination, the infected specimens from different mycological lesions were collected for direct examination using 30% KoH preparation, then were cultured on different mycological media, incubated at 26°C and observed daily for grwoth up to 4 weeks. The growth were identified by macroscopic and microscopic examinaton.

The heighest incidence of the disease were seen in patients between 23-34 years old (35%), while the lowest

incidence were seen in patients between 45-56 years old (3.33%). Tinea capitis and tinea barbae were more common in males (15% & 5%) respectively, while tinea manum, tinea pedis, tinea circinata and tinea cruris were more common in females (8.33%, 10%, 15%, 6.66%) respectivily. Onychomycosis, equally distributed between both sex (5% for each).

Direct examination of the infected specimens revealed positive results in (81.66%). Positive culture on Dermatosel agar and sabourauds cyclohexiмide chloramphenicol agar in (95%) while 100% on DTM. T. rubrum was the most common species isolated (40%) followed by T. violaccum (27%), T. montagrophytes (15%), Microsporum canis (6.5%), T. schoenleinii (5%) and lastly Epidermophyton floccosum (1.5%). In 3 cases no growth on Dermatosel agar and sabouraud's cyclohexiмide cholarmphenicol agar, but the color of DTM were changed.

It was also found that tinea capitis was mainly caused by T. violaceum and T. schoenleinii. Tinea pedis, tinea manum, tinea barbue, tinea circinata and tinea cruris were caused mainly by T. rubrum and T. mentagrophytes. While, onychomycosis caused mainly by T. rubrum then equally T. mentagrophytes and M. canis.

Concerning the percentage of T. cells as demonstrated by E. Rosette % test and lymphocyte blast transformation

test, were shown no significant difference between normal control and all case groups ($p > 0.05$) except in one case group who had tinea capitis caused by T. schoenleinii, this group showed significant difference.

CONCLUSION

The present study uncover and clarify several important points.

The laboratory studies both the direct microscopic and culture are very important to confirm the clinical diagnosis of tinea and the use of more than one medium is advocated to increase the chance of dermatophytes isolation.

Cultures from heavily soil contaminated feet, and from the nails require additonal interpretation and at least rudimentary knowledge of colonial morphology, to distinguish contaminant fungi and other bacteria from dermatophytes.

The immunological finding in this group of patients, most of them suffering from recently uncomplicated dermatophytosis, support the assumption that CMI plays a major role in defence mechanisms.

Finally, several in vitro-tests have been developed to measure CMI, other than lymphocyte blast transformation such as the macrophage migration inhibition test and lymphocytes cytotoxicity. However, all of these tests are expensive, technically difficult to perform, and have been shown to be as relaible as delayed hypersensitivity skin testing, which was one of the earliest test of immune function developed for use in human. We consider that skin test one of the most rapid, unexpensive and readily avaible tests for the evaluation of certain types of immunological reactions.