

INTRODUCTION AND AIM OF THE WORK

The human nail plate is a unique substrate with physical properties, growth characteristics and a specific micro-environment which serve to provide a "safe haven" for a range of different microorganisms. Among these infections, if not the commonest, are fungal infections of the nail. Onychomycosis of the finger nails and toenails accounts for more than 90% of nail infection, and represents about 30% of all superficial fungus infections and 1.5% of all new visits to dermatology centres (*Summerbell et al., 1989*).

This disease is more common among adults than children, affecting males and females with equal frequency. Most cases are caused by dermatophytes, in particular *trichophyton rubrum*, *T-mentagrophytes* and *epidermophyton floccosum* (*Meisel, 1990*).

Molds may secondarily infect nail already diseased; however, some are probably capable of primary invasion of the nail tissue. Mixed infections by dermatophytes, molds and/or yeasts are not uncommon (*Roberts, 1992*).

Predisposing factors such as impaired blood -circulation, peripheral neuropathy, diabetes melletus, damage from repeated minor trauma and limited immune defects as well as AIDS make the nail susceptible to fungal infection (*Andre, 1987*).

Treatment of fungal nail infections is relatively unsuccessful; with griseofulvin, given orally for up to 18 months for toenail infections, and 12 months for fingernail infections, a cure in less than 40% and 70% of patients, respectively, is achieved. Relapse occurs in at least 20% of cases at 1 year after apparently successful therapy. Oral ketoconazole is used for some fungal infections, but is seldom used in nail disease because of the complication of liver toxicity, and the role of topical agents as monotherapy is uncertain (*Goodfield, 1992*).

New oral antifungals namely, fluconazole, itraconazole and terbinafine have made much progress in the field of treatment of onychomycosis (*Zaias, 1990*).

Aim of the work :

- To study the most prevalent causative agents involved in onychomycosis.
- Evaluation of the clinical efficacy of oral antifungal therapy.