SUMMARY AND CONCLUSIONS

Chronic paronychia is a condition that is clinically characterized by chronic inflammation (longer than six weeks duration) of the PNF with or without nail plate surface abnormalities.

There are different opinions regarding the pathogenesis of CP. some authors consider CP as a mycotic disease as Candida is very commonly isolated from the PNF scrapings.

Others, consider CP as a variety of hand dermatitis and not a mycotic disease, that is influenced by environmental exposure to water, irritants and possibly allergens as candidal eradication by systemic antifungals not associated with clinical cure of CP in most patients and topical steroids were more effective than systemic antifungals in the treatment of CP. They considered Candida is just a colonizer of the PNF and it disappears when the PNF physiologic barrier is restored.

Lastly, some authors considered that contact irritants are the primary problem in the pathogenesis of CP and Candida plays a secondary role rather than a direct cause of CP.

The aim of the this was to define possible etiological factors in pathogenesis of CP and to compare the efficacy of systemic

antifungal systemic antibiotic, and topical cortcosteroids in the treatment of chronic paronychia.

One hundred female patients was enrolled in the study depending on diagnostic and exclusion criteria. They were subdivided into 5 groups each contained 20 patients. History taking and dermatological examination were done for each patient in the studied group. Mycological examination by KOH 20% and culture on SDA+C medium done for each patient in the studied group before treatment, at the end of the treatment period and at the follow up visit. Culture on rice agar and biochemical reactions done for all patients which were positive, for Candida by culture on SDA+C medium to identify the strain of Candida. Open patch test with fresh foods and standard (TRUE) patch test were done for each patient in the studied group before treatment to determine the role of allergens, irritants and food in the pathogenesis of CP.

Biopsies were taken from the PNF of patient with CP before open patch testing and from patients with positive open patch test reaction.

Group 1 was treated with itraconazole 200mg/day, G2 was treated with ciprofloxacin 1gm/day, G3 was treated with fluticasone propionate cream, G4 treated with itraconazole 200mg/day, ciprofloxacin, 1gm/day and fluticasone propionate cream and lastly G5 the control group treated by placebo. The treatment duration was 3 weeks and the patients were viewed after 6 weeks from the end of

the treatment (follow up visit). Clinical evaluation, mycologic examination and photographic record were done for each patient at the end of the treatment period and at the follow up visit.

In this study, the age range was (19-25) years (mean 131.1 ± 7.6) and the mean disease duration (12.9 ± 6.4) months. The relation between age of patient and the disease duration, with the clinical response to different treatment modalities at the end of treatment and at the follow up visit were non significant.

Chronic paronychia was more common on right fingers than left fingers. The most commonly affected fingers were the right thumbs (62%) followed by the left thumb (57.6%). These fingers may be more subjected to minor than the remainders.

Candida was isolated by the KOH 20% and culture SDA +C medium in 55 (55%) patients before treatment. At the end of treatment Candida was eradicated from 11 (22%) patients (3 patients treated with itraconazole, 2 treated with fluticasone propionate cream and 6 treated with itraconazole capsules, ciprofloxacin tablets and fluticasone propionate cream. At the follow up visit Candida was eradicated from 10 (25.6%) patients (3 treated with itraconazole, 2 treated with fluticasone propionate cream and 5 treated with itraconazole capsules, ciprofloxacin tablets and fluticasone propionate cream.

Three species of Candida were identified by culture on rice agar and biochemical reactions which includes C. albicans (92.7%),

C.glabrata (3.6%) and C. parapsilosis (3.6%) from patients which were Candida positive by SDA +C medium.

In the present study, significant contact irritant exposure was found in 33 (33%) patients from all patients in the studied groups with CP as evident by positive reaction to open patch testing with fresh foods and the pathologic changes observed in biopsies taken from PNF of patient with CP that had positive open patch testing which shows more eczematous reactions when compared by biopsies taken before the open patch testing.

In the present study, standard patch test was done for all patients in the studied groups and showed positive reaction to allergens in 15 (15%) patients.

Further expanded prospective studies are needed to determine the role of food in pathogenesis of CP with open and closed patch testing with fresh foods on the unaffected skin of the back, closed patch tests with standard series and food additives, scratch tests with fresh foods on the forearms and prick tests with food.

Treatment of CP primarily involves avoiding the predisposing factors such as exposure to irritant substances, prolonged exposure to water, manicures, nail trauma and fingers sucking. When it is necessary to wear vinyl gloves, cotton gloves should be worn underneath to avoid latex hypersensitivity.

In this study, evaluation of the clinical response to different treatment modalities at the end of treatment and at the follow up visit revealed that patients treated with, systemic antifungal, systemic antibiotic and topical steroid showed highly significant clinical response to treatment when compared with other groups as the total number of improved/cured patients were 14 patients at the end of treatment and 19 patients at the follow up visit.