**ABSTRACT**

**Introduction:** Hand dermatitis is an acute or chronic inflammation of the skin of the hands from a multifactorial cause which may be endogenous, exogenous or a combination of both. It has a worldwide prevalence rate of 10%, affecting all races and both sexes equally. It ranges in severity from mild, moderate to severe, with recurrent periods of exacerbation and has a significant impact on the quality of life of its sufferers. A history of atopy predisposes patients to hand dermatitis, but contact dermatitis either allergic or irritant, are the more commonly implicated factors in the aetiology of hand dermatitis. The role of fungi has also been implicated in the initiation and persistence of hand dermatitis. Management of this condition has proved difficult, even in developed countries where numerous studies have been carried out and this is largely due to the fact that the common trigger factors are difficult to avoid.

Compared with the UK and US, there is a paucity of data on African patients with hand dermatitis who are managed with protocols from developed countries. There is need to add to the body of evidence from this part of the world to improve the management of our patients.

**Aim and Objectives:** this study was undertaken to evaluate the clinical and aetiological profile of patients who presented with hand dermatitis at the Lagos University Teaching Hospital, identify possible aetiologies and observe the outcome of management with the use of disease severity tools and Quality of Life Index.

**Methodology:** This was a prospective, observational study in which consecutive walk-in patients who fulfilled the inclusion criteria were enrolled in the study. They filled self-administered questionnaires which included a quality of life section. They were clinically examined, had skin
scrapings for mycology studies and patch tested with the European Hermal series. The patch test was reviewed 72 hours later. Results were documented and treatment was individualised based on clinical and investigational findings under supervision of the consultant dermatologists. Each patient was followed up at 6 weeks when they were re-examined. Another quality of life questionnaire was filled at this visit. The results from baseline and at follow up were collated, and analysed with SPSS® 17.0 edition (SPSS II).

**Results:** Hand dermatitis was seen in 177 (13.3 %) of the 1,329 new patients who attended the skin clinic during the period of study. There was a slight female preponderance with female: male ratio of 1.2:1, though not statistically significant. The mean age was 34.6±17.4 years. Almost two thirds of patients (119; 67.2%) had chronic hand dermatitis, while (53; 32.8%) presented acutely. The most frequent work category was students (43; 24.3%). Health workers were notably few in this study with only 2 (0.01%) respondents.

Irritant contact dermatitis was the most common aetiologic factor found in 46.3% of subjects; and water/wet work were the commonest irritants. Patch test responses were positive in 36.7% of patients and 29.9% had atopic hand dermatitis. There was a significant association between atopy and irritant hand dermatitis ($P<0.019$). Factors associated with a moderate to severe disease were young age, positive patch test response and use of household cleaning products. There was a favourable outcome in management of disease with a statistically significant difference in the disease severity from baseline to six weeks of treatment ($P<0.00001$); as well as a statistically significant reduction in the impact of disease on quality of life ($P<0.00001$).
Finally, there was a positive correlation of the physician global assessment tool with the Dermatology life quality index (DLQI) both at baseline and at six weeks, which was also statistically significant ($P <0.01$).

**Conclusion:** Hand dermatitis rated high amongst the reasons why patients visit the dermatologists. The clinical profile was that of a predominantly younger age group and a variety of subtypes. The aetiology was multifactorial with irritant hand dermatitis seen as the most common cause. Wet work combined with the humid tropical environment may be responsible for the persistence of disease. Locally sourced allergens are needed to improve the yield of patch test responses. Management of hand dermatitis can be rewarding if aetiologic factors are put into consideration, as evidenced by the DLQI and PGA at baseline and post mana.