

## ***Acral Nodular Lichenification in Zambians – An Artefact***

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### **SUMMARY**

Acral nodular lichenification among two Zambians, acquired through a regular habit of scrubbing the body with stones, is discussed.

### **INTRODUCTION**

Artefacts are defined as skin lesions either perpetuated by the patients own action consciously for material gain or subconsciously due to mental disturbance.

During the past 6 years we have increasingly become aware of a unique skin lesion among many Zambians which we believe is an artefact due to a regular habit of scrubbing the body with stones while bathing. We are informed that this habit also prevails in the neighbouring countries and the skin lesions are well known (Owili). However, as far as we are aware, this problem has not been brought to light in the dermatological literature and we are reporting two illustrative cases:

#### **Case 1**

A 44 year old female presented with a 9 year history of progressively increasing nodular lesions on both legs. They first appeared over the ankles and later spread along the shins. Itching was moderate and present only in the first few months. She was treated with several topical medicaments including steroid preparations which did not make any change.

She had asthma for many years but never had any other skin problem. She gave history of using stones for scrubbing while bathing since childhood, and has been doing it more vigorously since the onset of skin lesions with the hope of curing them.

She had several streaks of lichenified nodules in symmetrical distribution on both legs and forearms. They were more prominent on legs (Fig. 1).

Biopsy showed lichenification in varying degrees and spiky hyperkeratosis. Papillary dermal vessels were prominent with focal non-specific inflammatory infiltrate.

#### **Case 2**

A 50 year old male complained of increasingly thickening of skin over his hands and feet since

many years. He had no itching, or family history of atopic disorders and other skin problem.

A history of scrubbing his body with stones since childhood was obtained and he had increased

**FIG. 1**



*Linear lichenified nodules over both shins.*

the practice over the affected areas. He had linear, flat lichenified nodules and plaques along tendons and bony prominences on both hands and legs (Figs. 2, 3 & 4). A biopsy showed marked thickening of all layers of epidermis and dermal changes were

limited to increased vascularity and scanty focal, non-specific infiltrate of mononuclear cells.

### DISCUSSION

When we first confronted this problem, the skin lesions were suspected to be either linear lichen planus hypertrophicus or warts. However, histological examination excluded these possibilities. Lichenification along bony prominences and tendons strongly suggested a frictional response. Occupational histories were non-contributory and the source of friction was eventually discovered as stones, used for scrubbing the skin while bathing. Subsequent patients presenting with the problem gave similar histories and we have also discovered that over 90% men and women attending the dermatology clinic are in this habit for many years. It is a very common practice and all types of stones are used (Fig. 5) which can be seen on the window sills of most shower rooms. The practice appears to vary in degree. Some scrub the whole body, while others only the extremities and a few only the feet to remove excess keratin. There may be other predisposing factors since only a few develop the skin lesions: Atopic histories are obtained in half the patients and it is very tempting to consider the skin problem as an atypical lichen simplex chronicus provoked by external trauma.

However, itching, prominently associated with lichen simplex is either absent or negligible among our patients. The relationship of the tendency to the atopic state is also not very clear. Although it is a characteristic feature of atopic state, not all atopics can lichenify and lichenification can also be seen in many non-atopics (Rook and Wilkinson, 1979). High incidence of lichenification in African people as an inherent nature is also known (Marshall, 1964) which makes the issue more complex. Many variations in the incidence of skin diseases as well as dermatoses exclusively seen among negroid populations have been described (Clarke, 1959, Rook and Wilkinson, 1979). The skin problem presented here is one more curious addition.

### ACKNOWLEDGEMENT

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### REFERENCES

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FIG. II

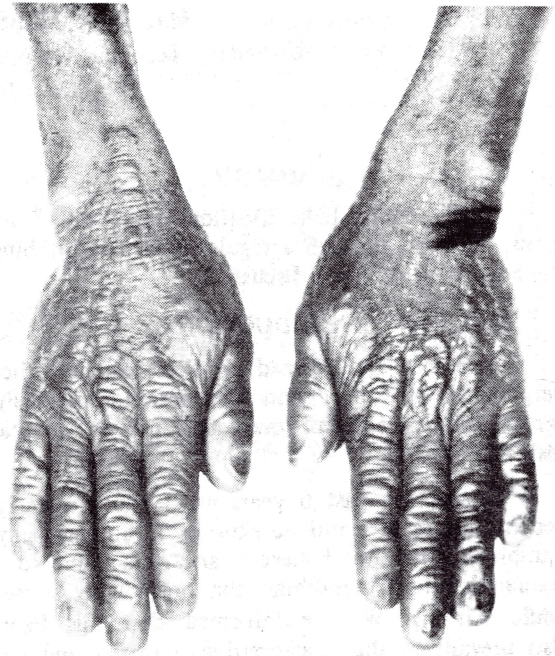
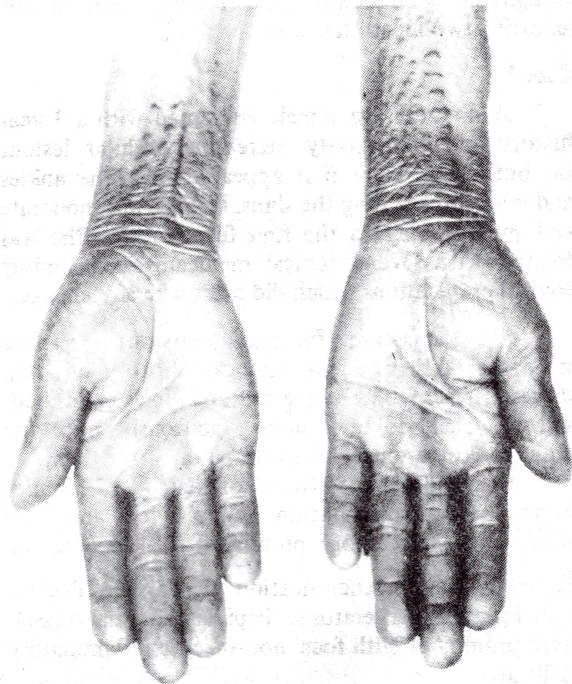


FIG. III



Linear lichenified nodules over hands

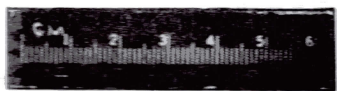


FIG. IV



and legs.

FIG. V



Stones used for scrubbing.

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