

Research letter

Prevalence of skin diseases treated at public referral hospitals in KwaZulu-Natal, South Africa

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DEAR EDITOR, In South Africa (SA), a country of about 50·6 million inhabitants, approximately 85% of the population is dependent on the public health sector. A total of 220 dermatologists practise in SA, with a ratio of one dermatologist to 216 000 people, most practising in the private urban areas. The importance and the need to quantify the burden of disease led us to describe prospectively the epidemiology of skin conditions in five public referral hospitals in the second most populous province of SA, KwaZulu-Natal (KZN).

To our knowledge, there is no local published or recent data in SA on the epidemiology of skin diseases seen at public health facilities. The study was conducted between 1 January and 31 March 2013.

We collected data related to age, gender, ethnic group based on patients' self-identification, and skin diagnosis. The diagnosis was made on clinical grounds, supported by relevant laboratory investigations or histopathology where necessary. Skin diseases were categorized using the International Classification of Diseases (ICD-10) into acne, eczemas and papulosquamous eruptions, dyschromias, infections, connective tissue disorders, autoimmune bullous skin diseases, hair disorders, skin neoplasms, adverse cutaneous drug eruptions, genodermatoses, cosmetic and other dermatoses. Only data relating to the patient's first visit were recorded and captured using Microsoft Excel, and subsequently analysed using SAS v9.1.3 (SAS Institute Inc., Cary, NC, U.S.A.).

A total of 4424 diagnoses were made in 3814 patients, of whom 77·6% were adults and 22·4% were children under 18 years old. Patients were 65% female. Africans made up 69%, followed by Indians at 24·7%; the rest were either white or mixed (coloured). Of the total diagnoses, 4242 were categorized. Eczemas and papulosquamous eruptions accounted for 41·0%, followed by infections (16·5%), acne and rosacea (9%), dyschromias (7·5%) and connective tissue disorders (4·2%). Table S1 (see Supporting Information) shows the synopsis of the spectrum of skin conditions for each ethnic group.

We believe we are seeing a changing trend in which pella-gra, once a common skin disease, is no longer observed, suggesting better nutritional practices of the population. Dyschromias, which have never been reported as a common

skin disease in SA, were observed in this study (Table S2; see Supporting Information).

Atopic eczema was the most common type of eczema (43·7%) followed by psoriasis (24·8%) and seborrhoeic dermatitis (13·4%). Studies conducted in black patients at public institutions in Pretoria (1982) and Johannesburg (2004)¹ have shown similar trends. Previously we reported eczemas to be the second most common skin condition in black patients attending a private healthcare facility in KZN.² HIV could contribute to increased seborrhoeic dermatitis, found in 20–40% of HIV-infected patients.³ Psoriasis was most prevalent in the Indian population, as observed by others.^{1,4}

Infections were the second most common, with dermatophytosis being the most prevalent (29·8%). Infections were also reported to be common in several other African studies.^{1,5} Human papilloma virus (HPV) infections were the most frequent viral infections (9·1%), consistent with other findings.¹ Bacterial and parasitic infestations were less frequently encountered (0·43%), suggesting an improvement in socioeconomic conditions of the population.

Acne and rosacea were the third most common category (9%). Acne vulgaris was the most common (71·5%), followed by steroid-induced acne, then rosacea. A high prevalence of steroid-induced acne (16%) among black patients¹ has been reported, and attributed to widespread use of corticosteroids; similarly, in our study, steroid-induced acne accounted for 12% of the study population. Yahya found acne to be second to atopic dermatitis in most studies conducted in Nigeria with a prevalence of 7·1% in Kaduna, north central Nigeria.⁶ Studies by Halder⁷ in the U.S.A. and Child et al.⁸ in a black population in London found acne to be the most common dermatosis both in the white and black adult populations.

In this study, dyschromias ranked fourth (7·5%). Vitiligo was the most common pigmentary disorder, seen in 39·5% of the study population, while postinflammatory hyperpigmentation was the second most frequently encountered dyschromia (20·3%). Dyschromias have ranked in the top five skin conditions in darker skin races in studies in the U.S.A., and the Afro-Caribbean population.⁹ It is worth noting that 30 years ago, ochronosis used to be a significant problem in SA,¹⁰ but in this study it was found in only 3·2% of the population. This may be a reflection of the successful campaign and legislation prohibiting the use and easily available hydroquinone-containing compounds.

Systemic lupus erythematosus (55·4%) and discoid lupus erythematosus (16·9%) were the most frequent autoimmune connective tissue diseases encountered. Studies outside of

Africa suggest it may be more frequent in people of African descent, with a prevalence of 19.5 per 100 000 in black Americans. Pemphigus vulgaris (65.4%), bullous pemphigoid (14.4%) and pemphigus foliaceus (11.1%) were the most common autoimmune bullous diseases seen. Pemphigus foliaceus was seen mainly in Africans (76%), while pemphigus vulgaris was most common in Indians (82%) in a previous report.¹¹

We noted a low prevalence of alopecia and hair diseases, in contrast to a study in the private health sector, where they were the fifth most prevalent skin disorders in the black population studied.²

We acknowledge that the duration of the study was short as it covered only one season and this may impact on the spectrum of dermatoses seen. In addition, studies based on specialized centre data are biased as they do not reflect the situation in the general population. However, even with these limitations, we believe that the prevalence data generated will assist in drawing intervention programmes to improve dermatological services in KZN and SA at large.

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Supporting Information

Additional Supporting Information may be found in the online version of this article at the publisher's website:

Table S1 Common skin conditions by ethnic group in public hospitals in the KwaZulu-Natal Province of South Africa.

Table S2 Prevalence of skin conditions in five public hospitals in the KwaZulu-Natal Province of South Africa.

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