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Report

Skin diseases among internally displaced Tawerghans living in camps in Benghazi, Libya

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Abstract

Background Benghazi has received many internally displaced persons (IDPs) from other Libyan cities as a result of the armed conflict in Libya. These groups have significant health problems associated with their displacement, including skin diseases.

Objectives This study aimed to determine the spectrum and frequency of skin diseases among people living in IDP camps in Benghazi.

Methods A total of 480 IDP camp residents with complaints of skin diseases were studied over a period of 6 months.

Results All subjects were ethnic Tawerghans; about three-quarters were female and half were adults. The disease types found to occur at the highest frequencies were skin infections (40.0%), followed by xerosis (31.3%), eczema (18.3%), acne (17.0%), hair-related diseases (6.7%), and psychosomatic diseases (3.0%).

Conclusions People who are resident in IDP camps have skin problems similar to those of other populations in similar circumstances. They have increased vulnerability to infections, environment-associated disorders such as xerosis cutis and eczema, and diseases of psychosomatic origin.

Introduction

War frequently affects the health of civilian populations, primarily by destroying or disrupting the social infrastructure of a country. Internally displaced persons (IDPs) are people who have been forced to leave their homes or places of habitual residence in order to avoid the effects of generalized violence, and who have not crossed an internationally recognized state border.[1] The armed conflict in Libya has caused several waves of internal displacement, and Benghazi has received many displaced people from other Libyan cities, including Ajdabiya, Sirt, and Misrata. These groups are mostly accommodated with relatives, host families, or in other sites such as public buildings. The people of Tawergha, a northwestern town of ~~40 000~~, inhabitants, were accused of supporting Muammar Gaddafi during the Libyan revolution and as a result were forced to flee their homes and to stay in camps. They have been prevented from returning to their homes by intimidation and violence by militias. The city now lies almost completely abandoned. The mass displacement of its people may constitute a war crime. At the time of this study, there were six Tawerghan camps in the city of Benghazi. None of these camps accommodated people of other ethnic origins. Internally displaced people are extremely vulnerable: they have generally experienced multiple traumatic events and have significant associated health problems, including skin diseases.[2,3]

The aim of this study was to determine the spectrum and frequency of skin diseases among people resident in camps for internally displaced Tawerghans in Benghazi, Libya.

Materials and methods

A 6-month, prospective study was performed among Tawerghans resident in camps, who complained of skin diseases and attended the dermatology department outpatient clinic at Benghazi Jumhoria Hospital, or clinics at the Hlees and Madena Readea camps. These camps are all located in Benghazi, and all camp residents originate from the town of Tawergha. In each subject, a detailed history was recorded and a complete skin examination carried out. Relevant investigations were performed when indicated and available.

Results

A total of 480 internally displaced Tawerghans resident in Benghazi camps were studied. All patients were of dark skin types (Fitzpatrick skin types V and VI). The majority (72.3%) of the study population were female. Adults

Table 1 Distributions of age, sex and race in the study population (n = 480)

Demographic data	%
Age group	
Adults	51.8
Adolescents	19.2
Children	25.0
Elderly adults	4.0
Sex	
Female	72.3
Male	27.7
Race	
Black	100
White	0

constituted 51.8% of the population, followed by children (25.0%), adolescents (19.2%) and elderly people (4.0%) (Table 1). The highest frequencies of disease referred to skin infections (40.0%), followed by xerosis cutis (31.3%) and eczemas (18.3%) (Fig. 1). Fungal infections were seen in 24.0%, viral infections in 7.7%, bacterial infections in 5.2% and parasitic infestations in 3.0% of subjects (Figs 2–5). Atopic dermatitis was the most common dermatitis in children (4.6%), whereas contact dermatitis (5.0%) was reported mainly in adults (Fig. 6). Disorders of skin appendages included acne vulgaris (17.0%) and hair-related diseases (6.8%), including telogen effluvium (4.2%), traction alopecia (1.2%) and alopecia areata (1.0%). Trichotillomania (0.4%), neurodermatitis (1.7%) and neurotic excoriation (0.6%) constituted psychosomatic diseases. Papulosquamous disorders included psoriasis (1.0%) (Fig. 7) and lichen planus (0.4%). Two female patients with connective tissue diseases (lupus erythematosus and dermatomyositis) were found to be experiencing flares.

Discussion

The conflict in Libya has caused the internal displacement of many people. Such IDPs face a variety of risks to their health: poverty, marginalization and lack of access to shelter, sanitation, food and water can all result in disease.[4] The present study brings into focus the pattern of skin diseases encountered among internally displaced Tawerghans in Benghazi camps. All subjects were of dark skin types (Fitzpatrick skin types V and VI[5]). The Libyan population is primarily of Arab or a mixture of Arab and Berber ethnicities.[6] Tawergha was populated with Black Libyans of sub-Saharan African descent, a legacy of its 19th century origins as a transit town in the trans-Saharan slave trade.[7] The majority of patients were female, which reflects the sex distribution of residents in the camps. The high frequency of skin infections can be attributed to poor hygiene and sanitary conditions. Nutritional status and lack of awareness were additional contributing factors. Overcrowding, exposure to animals and the sharing of combs were responsible for the spread of tinea capitis among camp children. In addition, there may be a possible racial predisposition as tinea capitis was found to be one of the most frequent dermatoses in Afro-Caribbean children in London[8,9] and peak incidences in the USA are reported to occur in school-aged African-American children.[10]

The frequent ritual washing of the feet without drying, a custom associated with Muslim prayers (*wudhu*), predisposes its practitioners to tinea pedis. Chickenpox is a highly communicable airborne viral disease that is easily

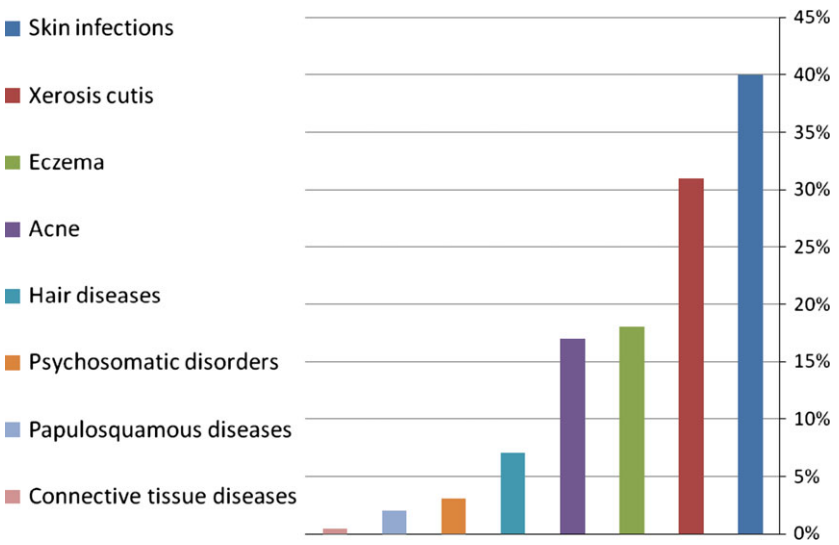

Figure 1 Frequencies of skin diseases among Tawerghan people (n = 480) living in camps for internally displaced people in Benghazi

Figure 2 Tinea capitis in a child, involving most of the scalp with dry bacterial infection

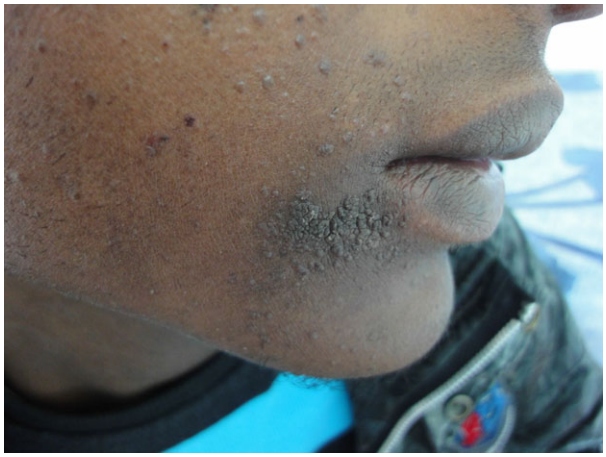

Figure 4 Facial warts on the right cheek and perioral region

Figure 3 Kaposi varicelliform eruption in a child with atopic dermatitis with extensive erosions on the cheeks

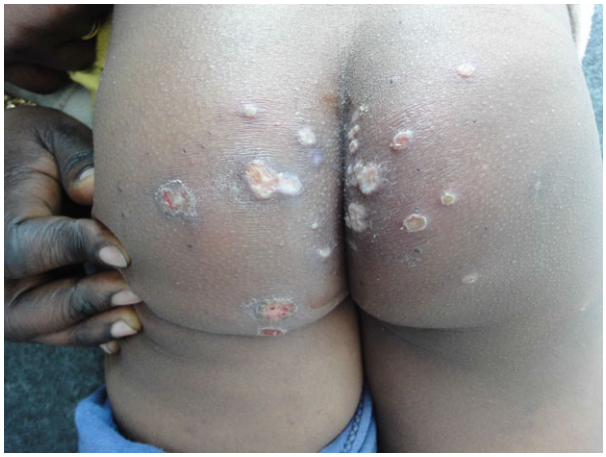

Figure 5 Ecthyma of the buttocks, in this case not associated with scabies

contracted in high-density crowded camps.[11] Re-infestation with scabies and poor compliance were important problems in IDPs. The psychological status of camp residents, as well as environmental factors including the provision of harsh soaps, rough clothing and staphylococcal bacterial infection may be important factors influencing the clinical expression of atopic dermatitis.[12,13] In addition, racial and ethnic factors may be involved as patients of African descent have been found to have higher prevalences of atopic dermatitis than other groups in the USA and UK.[14] Henna is a naturally occurring brown dye made from the leaves of the tree *Lawsonia inermis* and is used to dye the skin for cosmetic purposes.[15] Its traditional use represents one of the main causes of contact dermatitis. Excessive use of antiseptic soaps as Dettol soap by some camp residents to eradicate a true or imagined infection may cause dryness and irritation. Chloroxylenol, the active agent in Dettol soap, is a potential contact sensitizer and can cause irritant or allergic contact dermatitis.[16] Adolescent female patients presented with acne significantly more often than males, which reflects observations reported elsewhere.[17] In the present context, this may reflect the gender distribution in the camps. Traction alopecia is a finding commonly seen in women of African descent with curly hair and is related to hair-styling practices in this hair type.[18] Stressful events and nutritional deficiencies may trigger tellogen effluvium,[19] whereas psychogenic emotional factors have been found to show important associations with trichotillomania and alopecia areata.[20,21] Psoriasis is a cutaneous immunologic disease that is reported by significant numbers of patients to be exacerbated by stress.[20] One patient

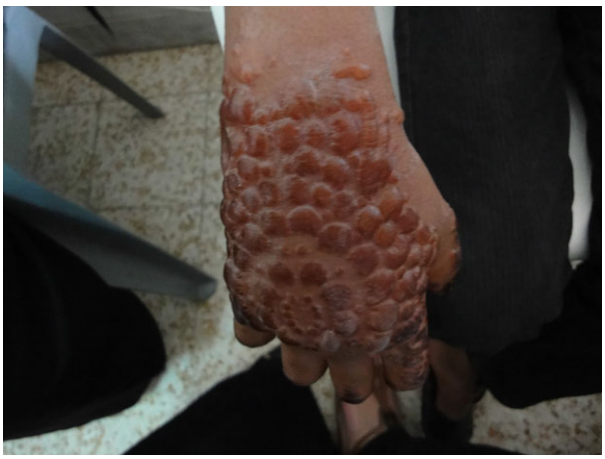

Figure 6 Contact dermatitis caused by the traditional use of henna

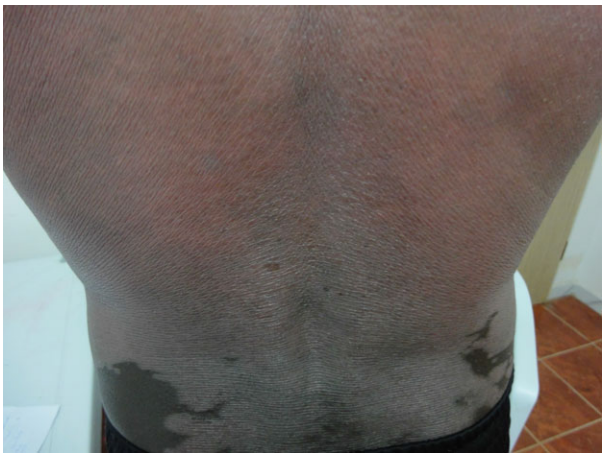

Figure 7 Erythrodermic psoriasis on a ~~patients~~ back

in the present population was found to have developed erythroderma in the camp. Environmental factors such as sun exposure, psychological factors, as well as difficulty in seeking medical care and in obtaining drugs were possible causes of the flares in the lupus erythematosus and dermatomyositis patients identified in the present study.

Conclusions

This study provides important data on the frequency of skin diseases in people living in camps for IDPs. Although most IDPs generally demonstrated good skin health, as do other populations in similar circumstances, this population has increased vulnerability to infections, environmentally associated disorders as xerosis cutis and eczema, and diseases of psychosomatic backgrounds.

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