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Acquired Erythroderma in Adults in Senegal: Epidemiological and Etiological Aspects

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Abstract

Introduction: Studies on erythroderma in adults are rare. The aim of this study is to specify the epidemiological and etiological characteristics of acquired erythroderma in adults in Dakar.

Patients and Methodology: This was a retrospective study based on the records of patients aged over 16 years admitted for erythroderma in the Department of Dermatology of Dakar University Hospital over a period of 10 years.

Results and Discussion: We collected 180 cases of adult's erythroderma corresponding to a hospital prevalence of 18 cases /year. Erythroderma represented 0.2% of all medical visits and 4.22% of admissions in our department. The mean age of patients was 45 years with a sex-ratio of 1:54. Erythroderma was in the majority, secondary to a complication of preexisting dermatoses, with eczema leading the list. The main factors leading to the exacerbation resulting in erythroderma were HIV infection and the intake of an inappropriate drug, mostly traditional plants.

Conclusion: Erythroderma is a particularly frequent condition in our regions, where it is mostly caused by the exacerbation of prexisting dermatoses, often due to unsuitable treatments, such as medicinal plants.

Keywords: Erythroderma; Sub-Saharan Africa; Medicinal plants

Introduction

Erythroderma is a dermatological syndrome with a variety spectrum of etiologies, related to geographical and social disparities.

Nevertheless, studies on erythroderma in adults are rare [1-4]. In Senegal, despite its frequency, no study has been done on this subject in the last 35 years [4].

The aim of this study was to specify the epidemiologic and etiological aspects of erythroderma in adults in the Department of Dermatology of Dakar University Hospital.

Patients and Methodology

We conducted a retrospective descriptive study from the records of patients aged over 16 years admitted for erythroderma in the Department of Dermatology of Dakar University Hospital over a period of 10 years (2003-2013).

The diagnosis of erythroderma was clinical. The final aetiology is a result of the evaluation of the clinical and histological findings as well as the evolution of erythroderma in each patient

Results

We collected 180 records of adult patients with erythroderma corresponding to a hospital prevalence of 18 cases/year. Erythroderma represented 0.2% of medical visits and 4.22% of admissions in our department during the same period.

However, only 137 records could be analysed. The mean age of patients was 45.1 years, (ranged from 18 to 96 years). The age group (40-60 years) was the most concerned. There were 83 males and 54 females with a sex-ratio of 1:54. The mean duration before medical visit was 42 days. Regarding the aetiologies, erythroderma was mainly secondary to a worsening of pre-existing dermatoses (Figure 1). In fact, eczema, most often atopic, represented the most frequent cause (50 cases; 36.2%) (Figure 2). It was followed by psoriasis (45 cases; 32.8%) (Figure 3). Erythrodermic psoriasis was associated with psoriatic arthritis in 3 cases. After an exhaustive etiological screening, the cause of erythroderma could not be determined in 13 cases (9.5%), and was classified as idiopathic erythroderma. Drug-induced erythroderma was found in 10 cases (7.3%), among which one case of DRESS syndrome. Incriminated drugs were herbal medicines in 3 cases and modern medications in 6 cases (neuroleptics: 3 cases, anti-TB: 2 cases, benzathine penicillin: 1 case). The fifth most common cause for erythroderma was pemphigus foliaceus (9 cases; 6.6%), followed by lymphomas (7 cases; 5.1%) (Figure 4). The lymphomas consisted of 5 cases of HTLV lymphomas and 2 cases of Sezary syndrome (Figure 5). Pityriasis rubra pilaris was noted in 2 cases and crusted scabies in 1 case.

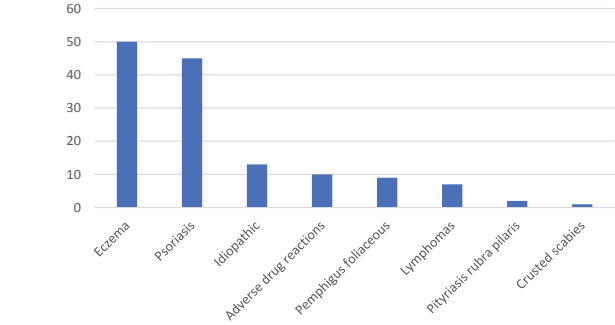

Figure 1: Distribution of the aetiologies of erythroderma.

In 9 cases, erythroderma occurred in patients with HIV infection.

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In this group, erythroderma was secondary to an adverse drug reaction to anti-tuberculosis medications in 2 HIV patients. On the other side, erythroderma was the circumstance of discovery of the HIV infection in 7 patients. This infection leads to an exacerbation resulting in

Figure 2: Erythrodermic eczema.

Figure 3: Erythrodermic psoriasis.

Figure 4: Erythrodermic pemphigus foliaceous.

Figure 5: Erythroderma secondary to Sezary syndrome.

erythroderma in 5 cases of psoriasis, 1 case of an adverse drug reaction and crusted scabies respectively. Apart from the HIV infection, unsuitable drug consumption (93 cases) was the precipitant factor of occurrence of erythroderma in patients with underlying pre-existing dermatosis. It was mostly oral herbal medicines (64 cases) and rarely modern medications (29 cases).

The mean duration of hospitalization for patients was 15 days (ranged from 5 to 55 days). A favourable course was observed in 127 patients (92.7%). Death occurred in 10 cases, mostly in the lymphomas group,

was secondary to Septicemia (5cases), severe lung-infection (2 cases) and not specified in 3 cases. A relapse occurred in 24 cases (17.6%). It was related to medicinal plants intake (11 cases), a discontinuation of treatment (9 cases) and infection (4 cases).

Discussion

This study on erythroderma in adults is, to our knowledge, the second in sub Saharan Africa [4]. Erythroderma seems to be more frequent in our regions, compared to the West where its incidence has been estimated between 1 to 2 cases/100 000 inhabitants/year [5,6].

Like many other series in Africa, erythroderma was mainly secondary in our study, to an exacerbation of a pre-existing dermatological disorder [7-9]. The frequency of this condition in our regions can, in part, be explained by the deficiency of consultants in Dermatology which exposes patients suffering from dermatological diseases often to unsuitable treatments, prescribed in majority by nurses and leading to their exacerbation into erythroderma. Moreover, the frequent mystical connotation of skin diseases prompts patients to resort to medicinal plants. Indeed, as in previous studies, including our own, phytotherapy remains the main exacerbating factor of pre-existing dermatoses [4,7,8]. The harmful effect of at least 18 of these plants has already been attested in a study [10]. In Africa and particularly in Senegal, the use of phytotherapy is widespread, constituting the first therapeutic resort in more than 90% of the population [10].

HIV infection can also lead to worsening of a dermatosis into erythroderma, as observed in our study and also in many other studies in Africa [4,7-9]. In fact, HIV infection is known to predispose to the occurrence of severe forms of dermatoses, particularly psoriasis and adverse drug reactions [11].

In our study, as in many others recent studies in sub-Saharan Africa, eczema were the main dermatosis complicated towards erythroderma [7]. Indeed, there is a significant increase in the frequency of this condition in our regions where it represents nowadays the 1st reason of medical visit in Dermatology [12].

Idiopathic erythroderma represented the third group in our study. In the medical literature, the prevalence of idiopathic erythroderma ranges between 7.2% to 38% [13].

In contrast to the West, lymphomas were rarely a cause for erythroderma in our series. There were dominated by HTLV lymphoma which clinical presentation can be sometimes similar to Sezary syndrome [14].

Conclusion

Erythroderma is a condition particularly frequent in our regions where it is often caused by the worsening of pre-existing dermatoses, due mostly to unsuitable treatments, such as phytotherapy.

Conflict of Interests

None.

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