

Epidemiology and clinical study of pediatric psoriasis on black skin in Dakar, Senegal

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Abstract: Introduction: In subsaharian African countries there are so few data concerning the psoriasis of the child. Our objective was to determine the epidemiological, clinical and therapeutic aspects of the pediatric psoriasis in a dermatology unit, at Dakar in Senegal. Patients and methods: This was an 8 years (2004-2011) retrospective study conducted at the Dermatological clinic of HALD. All patients under 16 years old with psoriasis were included. Results: We report 40 cases of psoriasis of the child. The sex ratio was 1.05 and the average age of 6 years. The atopic status was found in 4 cases as follows: 3 cases of asthma and 1 case of atopic dermatitis. The average time of consultation was 5 months. The way the patients consulted was: 28 cases consulted a general practitioner, 6 cases seen by a paramedic and 5 patients consulted a traditional healer. The pruritus was present in 14 patients. The psoriasis vulgaris was the predominant form with 20 cases. The other forms were: 12 cases of guttate psoriasis, 6 cases of psoriasis universalis, 1 case in pustular and 1 case erythrodermic. The topical glucocorticoids were prescribed in all the patients. The recurrence was found in 5 cases and 8 patients were lost of follow up. Conclusion: Psoriasis is a rare and benign condition in children with predominance of simple forms such as psoriasis vulgaris.

Keywords: Psoriasis, Children, Dakar

1. Introduction

Psoriasis is a chronic inflammatory disease characterized by an acceleration of epidermal turnover manifested by erythematous and scaly lesions, sometimes pustules and extracutaneous signs including articular [1]. Data on pediatric psoriasis are rare in sub-Saharan Africa [2]. Our objective was to determine the epidemiological, clinical and therapeutic characteristics of pediatric psoriasis on black skin.

2. Patients and Methods

This was a retrospective study with a duration of eight years (2004-2011), performed in the Department of Dermatology of the Hospital Aristide Le Dantec (HALD). Were

included all patients with psoriasis and under the age of 16 years. The diagnosis of psoriasis was clinical and histological.

3. Results

We report 40 cases of pediatric psoriasis during this period of eight years. Pediatric psoriasis accounted for 0.5% of children seen in consultation and 19.4% of psoriatic patients. The annual incidence was 4.8 on average. Sex ratio was 1.05 and the average age was 06 years, ranging from 3 months to 16 years. Age ranges [0-4] and [5-9] were the most represented in our series (Table 1). Atopy was observed in 4 cases, as asthma in 3 cases and atopic dermatitis in 1 case. The average time of consultation was 5 months with extremes ranging from 1 month to 3 years.

Previous support for consultation before the dermatologist was done by the family doctor in 28 cases, a paramedic in 6 cases and a traditional healer in 5 cases. Established treatments were: Penicillin G in 3 cases, antifungals in 5 cases, topical corticosteroids in 6 cases and African herbal medicines in 5 cases. Pruritus was noted in 14 cases. Identified clinical forms of psoriasis were: vulgaris in 20 cases (Figure 1), guttata in 12 cases, universalis in 06 cases (Figure 2), pustular and erythrodermic (Figure 3) in each one case. Various locations were identified in 21 patients: folds in 8 cases (Figure 4), palmoplantar in 7 cases (Figure 5), the scalp in 4 cases (Figure 6), diapers in 2 cases and mucosal in the form of geographic tongue. The rest of the examination highlighted a streptococcal infection in 5 patients; pharyngeal localization in 3 cases and 2 cases of otitis; in children presenting guttata form. The hemogram showed a neutrophilic leukocytosis in 5 patients. A skin biopsy performed in all patients was contributory to the diagnosis of psoriasis. Retroviral HIV serology was negative. Treatments were topical corticosteroids in 33 cases, emollients in 22 cases, calcipotriol in 8 cases and antistreptococcal antibiotics in 5 cases. After 2 months of treatment, a positive evolution was noted in 25 cases, marked by complete regression of lesions. Recurrent disease was observed in 5 cases and 08 patients were lost to follow.

Table 1. distribution of patients according to age groups.

Age group	Headcount	Pourcentage
[0-4 years]	16	40%
[5-9 years]	14	35%
[10-14 years]	7	17.5%
[15-16 years]	3	7.5%



Figure 1. psoriasis vulgaris.



Figure 2. psoriasis universalis.



Figure 3. érythrodermic psoriasis.



Figure 4 . inverted psoriasis.



Figure 5. plantar psoriasis.



Figure 6. scalp psoriasis.

4. Discussion

Psoriasis is a rare disease in childhood. As in the study of Pitche [3] conducted in Togo, which had found 11 cases over a period of 10 years. In our study, children psoriasis accounted for only 0.5% of pediatric dermatological consultations and 0.67 % of all patients seen in the department during the same period. Children accounted for only 19.4% of all patients with psoriasis. In a study by Ly et al [4] in the same department relating to 295 patients, psoriasis of the child was only 6%. There was no sex predominance. Kumar's [5], Morris's [6] and Pitche's [3] studies found similar rates of 1.09, 1.14 and 1.15. In most European series, female predominance was clear before 10 years [7, 8]. In our study, age groups [0-4] and [5-10] were the most representative. We did not find any congenital form. Indeed it is a very rare form [9]. In our study the average age was 6 years. This result is lower than that found by the Pitche in Togo [3] which was 8 years. The absence of pain reflects a part of the long period of consultation. On the other hand the lack of qualified personnel, still testifies diagnostic

delay with inadequate and inappropriate prescriptions reflecting ignorance of psoriasis. Atopy was observed in 4 cases (3 asthma and one atopic dermatitis). According to Beer, atopic dermatitis is a predisposing factor psoriatic precede it in half the cases [10, 11]. This may partly explain the pruritus noted in a third of our patients. The study of Ly et al [4], noted it in half of the patients and had discussed the role of African herbal medicine in the occurrence of pruritus. In addition, scraping is a disseminating factor through the K \ddot{o} bner phenomenon. Clinically psoriasis on black skin is characterized by redness and very thick squames, making diagnosis easier. In our series, the majority was represented by vulgar form (50%). This result is similar to Kumar [5] and Seyhan [12] with respective rates of 60% and 54%. The gutata form, most classic in childhood accounted for 29% of cases. Seyhan [11] found a similar rate. It is closely related to the existence of a streptococcal infection. In our study antibiotics allowed the regression of lesions. Macrolides were preferred to beta-lactam antibiotics due to the aggravating effect of these on psoriasis [13]. Elective topography was at the folds in 20%. In its limited form, it poses real problems of differential diagnoses with fungal intertrigo and folds eczema in children. Pustular and erythrodermic psoriasis represented severe forms, facilitated by African herbal medicine of unspecified nature. These may exacerbate dermatitis such as psoriasis [14] and stopping these plants has promoted regression of lesions without creating a systemic treatment. Local treatment has allowed a favorable evolution for 62% of patient. Therapeutic breaks induced by socio-economic difficulties and the chronic nature of the disease could explain the number of lost sight.

5. Conclusion

Psoriasis is a rare condition in children with a predominance of simple forms such as the vulgaris one. Pruritus was frequent, observed in a third of patients. Prognosis was good in most cases, justifying non-aggressive therapeutics.

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