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Case Report

Mucocutaneous candidiasis or psoriasis?

A case report

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Abstract

BACKGROUND: Pustular psoriasis is a rare form of psoriasis in childhood. The prevalence of psoriasis in various parts of the world varies from 0.1% to 3% and the most frequently observed variant is the plaque type, followed by the guttate psoriasis.

CASE REPORT: A 4-year-old boy with a history of repeated self-limited arthritis, onycholysis, recurrent erythematous skin, diaper rash, fever and pustular lesions, had several hospital admissions with no benefits. After a 2-year delay in the diagnosis, he was treated as a case of pustular psoriasis which was shown by skin biopsy.

KEY WORDS: Pustular psoriasis, arthritis, children.

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Psoriasis is a common chronic skin disease which is characterized by epidermal hyperplasia and it greatly accelerates epidermal turnover. Approximately 2% to 3% of the population of the world is afflicted by psoriasis [1]. Less than 10% of the psoriatics develop disease during childhood [2]. Any area can become involved; the most common areas of involvement are the knees, elbows, scalp, hands, feet, and the lower back face. The disorder takes many clinical forms. The most frequently variant of psoriasis in childhood is the plaque type which is followed by the guttate type [3]. Pustular psoriasis and psoriatic arthropathy are rare in childhood. Children aged between 2 to 10 years old are mostly affected at the time of the onset. Pustular psoriasis may be localized or generalized. Generalized pustular psoriasis is characterized by the disseminated deep red erythematosus area and the pustules, which may merge to extensive lakes of pus. The presenting patient is a case of psoriasis with onychodystrophy and arthropathy and his disease progressed to a generalized pustular form in 2 years. The aim of the present case report is to describe the atypical clinical presentation of psoriasis in children with self-limited episodes of arthritis as the first presentation which may cause misdiagnosis and mismanagement.

Case Report

A 4-year-old boy, who had a history of several episodes of self-limited arthritis without

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deformity in the last 2 years, was admitted to our ward. His wrists, shoulders and recently metacarpophalangeal joints were involved. In addition, he had suffered from recurrent thrush, diaper dermatitis and paronychia that seemed to be a candidal nail involvement (figures 1, 2 and 3). He had a full work-up for phagocytic and cellular immune deficiencies all of which were negative. He was labeled as a case of chronic mucocutaneous candidiasis due to the recurrent thrush and onycholysis. Regardless of the immunologic lab findings, he had taken prophylactic antifungal drugs as a treatment and he also took prophylaxis for months. Two weeks before his last admission, he developed fever and pruritic rash. Physical examinations revealed generalized erythrodermic pustular rash which was prominent on his face, genitalia, extremities and they were coalescing into large lake involving the whole body. There were scaling of lesions and nail involvement as pitting, subungual hyperkeratosis and onycholysis. In laboratory work-up, the CRP was +2 and the ESR was 48 mm/hr. Leukocytosis (29200/ml), hypochromic microcytic anemia (Hb: 7/9 g/dl) and thrombocytosis (687000/ml) were seen. But electrolytes, calcium, BUN, creatinine and liver function tests were all normal. Blood and urine culture were negative. The smear of pustular lesion revealed many PMNs but its culture was negative. As regard to the patient's past history, systemic findings and the type of lesions, amphotericin B was started with the impression of the generalized mucocutaneous candidiasis. A week after the treatment, he didn't have any responses. Therefore, we decided to perform the skin biopsy which was compatible with psoriasis. Antistreptolysin (ASO) antibody titer was sent, but it was within the normal limit. Finally, we treated the patient with the retinoid agents.

Discussion

This patient had nail involvement and thrush and recurrent self limited asymmetric arthritis in the last 2 years. Then, he was admitted with a fever and generalized pustular skin eruption which was diagnosed as a generalized pustular psoriasis (GPP) in skin biopsy. This type of lesion is very rare in children and fewer than 200 cases with GPP have been reported in the literature [4]. For the first time, it was described in 1910 by Von Zumbusch and is perhaps considered the most severe form of psoriasis [5]. Anne Morris et al in a clinical review of 1262 cases, reported that the incidence of pustular type in the infants younger than 2 years and in children older than 2 years was 1/5% and 1/7%, respectively [6]. Most patients with GPP are acutely ill and have fever, leukocytosis, hypocalcaemia (Ca: 7 mg/dl with normal range of 7/6-10), and hypoalbuminemia (albumin: 3/6 g/dl with normal range of 3/5-5) [7]. A more recent review of 208 cases of recurrent GPP have indicated that this disease was more likely to have been triggered by corticosteroids in the patients with preceding plaque-type psoriasis and it is also triggered by infection in the patients without a history of psoriasis [7]. Our patient didn't have any history of steroid consumption. As mentioned above, he suffered from arthritis which is an extra-cutaneous manifestation that affects at least 5 percent and perhaps as many as 20 percent of the patients with psoriasis [8,9]. The fact that joint complaints are more common if the person has psoriatic nail lesions has been known for many decades [10]. In regard to the prominent signs and symptoms of this case (onychodystrophy and mouth thrush) and self-limited pattern of arthritis, we paid less attention to arthritis as a main sign. The results of other investigators [11] seem to indicate that 10 % of patients develop arthritis before psoriatic lesions appears, 25 % of the patients develop simultaneous abnormalities, and 65 % of the patients show psoriasis before psoriatic arthritis. The nails are affected in the majority of patients with psoriatic arthritis, which range from pits and yellowish discoloration to severe onychodystrophy [8,9,12]. Kumar et al. reported 31% nail involvement in psoriatic patients [13]. Our patient had nail involvement, paronychia and thrush which were probably due to the antibiotics consumption and/or psoriatic nail lesions. Therefore, this case was

labeled as a case of chronic mucocutaneous candidiasis which is one of the differential diagnoses of GPP. Other differential diagnoses are eczema, seborrheic dermatitis, pityriasis rubra pilaris, drug reactions, cutaneous T-cell lymphoma, and discoid lupus erythematosus [7]. Although psoriasis is seen as a disease that does not kill, researchers documented that patients with moderate to severe psoriasis are at increased risk for death [14]. Mortality can be associated with hospitalizations for psoriasis. Though effective therapies for severe psoriasis are available, access to them is not guaranteed. It is disturbing to think that the deaths observed here could, at least in part, be prevented with the appropriate use of treatments [15]. Although self-limited pattern of arthritis in this case was unusual for psoriasis arthritis, due to the skin biopsy and other clinical manifestations, we believe that he was a true case of psoriasis (figure 4).

Conclusion

For any child with recurrent nail involvement and arthritis, the GPP should be considered as the main differential diagnosis and full work-up including skin biopsy should be performed.

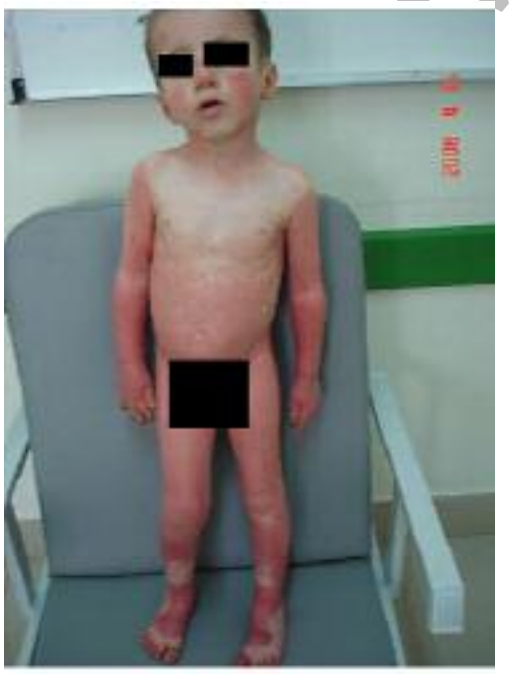

Figure 1. Skin involvement of disease.

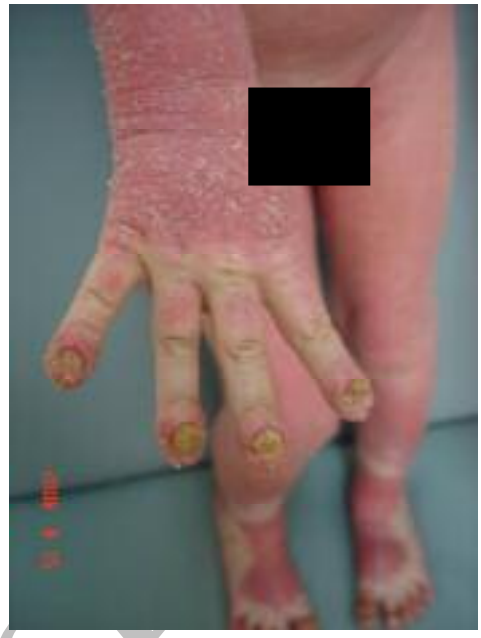

Figure 2. Nail involvement of disease.

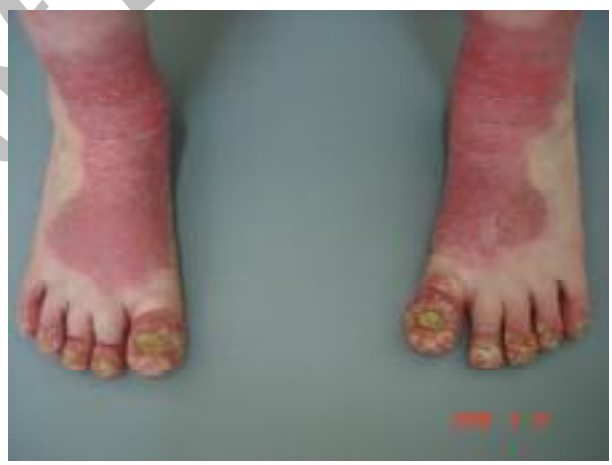

Figure 3. Nail and Skin involvement of disease.

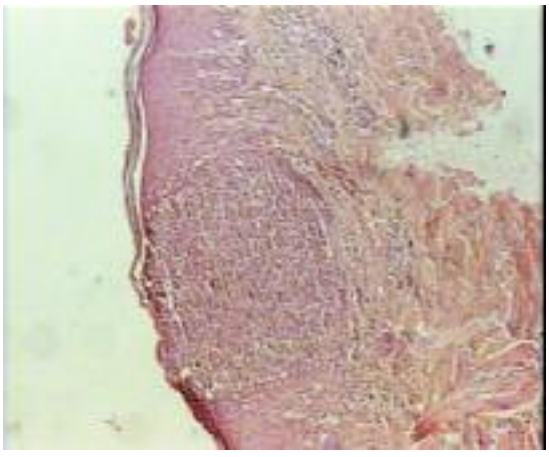

Figure 4. Pathologic view of pustular psoriasis.

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