

INFANTILE PSORIASIS TREATED SUCCESSFULLY WITH TOPICAL CALCIPOTRIENE

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Abstract

Infantile psoriasis is a benign disease. Systemic features are rare and spontaneous remission occurs. There is a hazard of viral infection particularly in steroid treated children. Psoriasis in infancy is often more therapeutically challenging than atopic and seborrheic dermatitis. We report a case of nine month old infant treated with topical calcipotriene for infantile psoriasis who experienced greater benefit than he had with standard corticosteroid medications.

Key words: psoriasis; infantile; calcipotriene; scaling; childhood; histopathology

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Introduction

Psoriasis is a common inherited papulosquamous dermatosis that may be a diagnostic dilemma, particularly in infants and children [1]. The treatment of children with psoriasis should be handled with caution and tailored according to the child's age, as well as to the extent, distribution, and type of psoriasis. Childhood psoriasis is a disease with manifold clinical presentations which can make the correct diagnosis sometimes difficult. Infantile variety of psoriasis may sometimes be confused as sebopsoriasis, i.e., in between stage of seborrheic dermatitis and psoriasis where lesions are mainly confined to scalp, eyebrow and behind the ear but on histopathology typical spongiform pustules are absent. Infantile variety of psoriasis is rare (about 1-2% of pediatric psoriasis) and only two cases of congenital variety have been reported [2]. The clinical manifestations of psoriasis in a child are generally similar to those in an adult. However, the condition often takes on atypical forms in children which can lead to diagnostic problems. Certain childhood dermatoses which involve the buttocks, eyelids and scalp strongly resemble psoriasis [3].

Case Report

A nine month old boy reported with complaint of generalized scaling for last two months. He was referred from periphery with a diagnosis of extensive seborrheic dermatitis

and was treated with some topical medication containing salicylic acid and corticosteroids. Initially, mother noticed a circular greyish scaly lesion about 3 cm in diameter over parietal region of scalp. The scales were large and loose. The lesion was non discharging and scalp hair were normal. The lesion then gradually spread to involve the entire scalp and quickly affected whole of the body including palms and soles (Fig. 1). In some lesions over abdomen (Fig. 2), pustules were found under the scales and on removal of scales pin point bleeding was noticed (Auspitz sign). During the course of illness there was spontaneous remission of some lesions which was followed by recurrence. No history of similar lesions in other family members was present. The baby was well nourished with normal motor and mental milestones. Birth history was uneventful and baby was exclusively breast fed and immunized. Skin biopsy showed parakeratosis with psoriasiform hyperplasia of epidermal lining in one area of the upper epidermal layer and Munromicroabscess (Fig. 3). There was exocytosis with spongiosis wherein acute inflammatory cells were found. The patient was put on topical calcipotriene. 0005% for a period of 4-6 weeks. Laboratory testing for calcium metabolism was normal during the course of therapy. Remarkable improvement was seen after six weeks of treatment with clearance of scales and decrease of erythema.



Figure 1. Scaly and hyperkeratotic lesions over the soles



Figure 2. Erythematous scaly plaques over the abdomen of a nine month old child

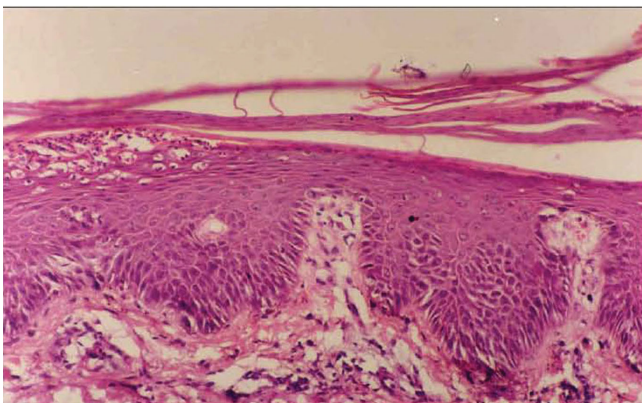


Figure 3. Histopathological findings showing parakeratosis with Munromicroabscess with spongiosis H&E stain 100X

Discussion

The onset of psoriasis is observed before the age of 10 years in 15% of all patients. The clinical pattern often takes on a peculiar form [4]. Psoriasis guttata--or less frequently nummular psoriasis--is the initial phase during childhood. It is very difficult to establish a diagnosis on the basis of incipient features when childhood psoriasis is located on the head, palms, soles, or on the fingers, toes and nails [5]. Intertriginous or flexural psoriasis, psoriasis spinulosa and oral psoriasis is also described. Infantile psoriasis resembles adult psoriasis and causes itching in 30% of cases. However, it has some specific clinical features. The Koebner phenomenon, whereby psoriatic lesions appear on areas of the skin that have been traumatised or irritated, is particularly common in children [6].

The fact that a child has suffered with psoriasis from his or

her earliest years is not in itself an unfavourable prognostic factor. Similarly, the onset of severe psoriasis during childhood does not mean that the child will continue to suffer from severe psoriasis as an adult. However, given the chronic nature of psoriasis, it is highly likely that the child will continue to suffer from flares of psoriasis punctuated by periods of remission for the rest of his or her life. Psoriasis can appear very early in life, but is rarely present from birth. However, babies are subject to a particular form of psoriasis called napkin psoriasis. This is a dermatosis with lesions chiefly present on the buttocks due to irritation of the skin by urine and stools. These lesions are not obviously psoriatic, and this type of psoriasis poses diagnostic problems. It is difficult to be sure if the baby has psoriasis or simply a dermatosis on the buttocks which resembles psoriasis. In older children, psoriasis has to be distinguished from a seborrheic dermatosis resulting in lesions in the skin folds and on the buttocks and scalp. The generalized nature of psoriasis and the intensity of inflammation often reduce the efficacy of topical corticosteroids. Furthermore, involvement of intertriginous skin and the presence of scalp disease limit the potency of the topical steroids that can be prescribed. Guttate psoriasis is particularly common in childhood. It is characterised by the sudden appearance of small, red, scaly lesions particularly on the trunk, arms and legs.

The lesions in children are located in virtually the same places as in adults. However, whereas facial lesions are rare in adults (present in 5.6% of cases), they are common in children (present in 30% of cases). Lesions are found on the forehead and cheeks, which become very red, and sometimes involve the eyelids and ears. Facial lesions have profound consequences on the patient's ability to form relationships.

The type of treatment prescribed by the dermatologist should not only be appropriate to the clinical form of psoriasis but also take into account the wishes of the child (if he or she is old enough to express them) and of the parents. The dermatologist, parents and child should work together to find the treatment which best suits the child. The benefits and risks of a treatment should be weighed even more carefully than for adults, especially as regards systemic treatments. Because of the toxicity of certain drugs, there are fewer treatments available for children than adults. Infantile psoriasis is commonly treated sequentially, with treatment altered every three months (it is treated the same way in adults). Lesions are less visible during summer because of exposure to the sun. Treatment should be recommenced when new eruptions appear, and continued until lesions turn white. Most importantly, the skin must be moisturised, usually by taking baths with emollients and using moisturising creams. Cortisone-based ointments are highly effective on psoriasis lesions [7]. The dermatologist may suggest a systemic treatment when the psoriasis is very widespread or severe and when it is having a significant impact on the patient's life.

Systemic treatments have significant side effects and their advantages and disadvantages should be carefully balanced with the child and his or her family. They are usually prescribed for a very short period of time and their use must be monitored. PUVA therapy is generally used only on children over 15 years as it leads to an increased risk of cancer. Retinoids are used for treating pustular and erythrodermic psoriasis and psoriatic rheumatism [8,9]. Children must be particularly carefully monitored to make sure that retinoids are not inhibiting their growth. Calcipotriene is very effective

over the intertriginous areas where corticosteroids can't be prescribed [10]. Moreover the potent corticosteroids can be hazardous in children.

Conclusions

We conclude that calcipotriene can be a safe and effective therapy for psoriasis in early infancy.

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