

Psoriasis Vulgaris in Children - Case Presentation

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ABSTRACT: A seven-year-old girl, with erythematous-squamous rash, was admitted to our clinic to decide upon the diagnosis and treatment, being transferred from a county hospital. Heredo-collateral antecedents – an aunt, related to her mother, with psoriasis. When admitted, the patient presented prominent non-pruriginous erythematous plaques, clearly marked and covered by thick, silvery-white scales, easily exfoliating, all over at the level of: scalp, earlobes, neck, torso, limbs, periungual, axillary and genital areas. The dermatological examination: psoriasis vulgaris in patches and plaques, a diagnosis also confirmed histopathologically. Using a local dermatologic treatment, the evolution was favorable, the patient initially presenting thick squamae, then, gradually, there occurred the psoriasis whitening. We presented this case since psoriasis is rarely met at this early age.

KEYWORDS: psoriasis, child, diagnosis

Introduction

Psoriasis is a common inflammatory cutaneous disease with unknown etiology. It is characterized by erythematous papules and plaques covered with silvery scales [1]. The incidence of psoriasis among dermatological patients in childhood and adolescence was 3.8% [2]. In fact, the actual incidence of childhood psoriasis is much higher than the one reported, as many adult patients with onset of the disease before the age of 15 did not seek any medical help [3].

Childhood psoriasis is a different entity from adult psoriasis [3]. Although there are many clinical subtypes, the most frequent one is psoriasis vulgaris. Psoriasis vulgaris comprises 85-90% of all the psoriasis subtypes [4].

Case Presentation

A seven-year-old girl, with a generalized erythematous squamous rash, was admitted to 2nd Pediatric Clinic, Emergency County Hospital Craiova (medical record no. 7885) in February 2015, being transferred from a county hospital.

Personal physiological antecedents. Fourth child, due time birth, natural childbirth, birth weight = 2200 g, Apgar score 8, breastfed until 4 months, correctly diversified after 4 months,

weaned at 7 months, at present being fed with adult food. Normal psychomotor development.

Personal pathological antecedents: chicken pox at four years old.

Heredo-collateral antecedents: healthy parents, 3 healthy brothers, an aunt, related to her mother, with psoriasis.

Anamnesis. The onset was 2 weeks before, with an erythematous rash at the abdominal level. She went to the dermatologist who recommended a local treatment with Fluocinolone ointment and magistral prescription with salicylic acid, urea and jelly. The rash generalized: squamous patches appeared and subsequently she was admitted to our clinic.

When admitted: no fever, weight= 20 kg, fair general state, erythematous rash in patches, erythematous plaques covered with silvery, thick, easily exfoliating, not painful, non-pruriginous squamae, with the presence of Auspitz signs and white spots, at the level of scalp, earlobes, retro-auricular, anterior and posterior torso, abdomen, lower and upper limbs; pustules surrounded by red skin at the axillary, genital and inguinal level. Pulmonary – normal, normal heartbeat, CF=98/min, supple abdomen, liver 1 cm below costal margin, based-flared thorax, tooth caries (Fig.1).



Fig.1. Clinical aspect when admitted

Investigations. Hemogram: Hb= 12.2g%, Tr= 236000/mm³, L= 16000/mm³, NS=62%, Ly=32%, M=6%, VSH= 7/14 mm after 1/2 hours, fibrinogen= 397 mg/dl, CRP= 0.4 mg/l, creatinine= 0.4 mg/dl, uric acid = 3.53 mg/dl, glycemia= 82 mg/dl, calcemia= 8 mg/dl, total serical proteins= 6.5 g/dl, sideremy= 103 mg/dl, GOT= 19 U/l, GPT= 14 U/l, negative coproparasitary examination, normal urine summary examination, ASLO= 116.86UI. Immunogram: IgA= 76.67 mg/dl, (N=70-400), IgG= 865.5 mg/dl (N=700-1600), IgM= 167.2 mg/dl (N=100-230), pharyngeal exudate: absent streptococcus, staphylococcus, nasal exudate: present staphylococcus aureus, sensitive to: Biseptol, Linezolid, Gentamicin, Vancomycin, resistant to: Penicillin, Clarithromycin, Oxacillin. Normal abdominal ultrasound.

Dermatologic examination: psoriasis vulgaris in patches and plaques. Cutaneous biopsy / histopathological examination - microscopic examination: epidermis with orthokeratosis, large areas of hypo- and agranulocytosis, acanthosis, mild perivascular chronic inflammatory infiltrate in the dermis. The HP aspect most probably suggests psoriasis vulgaris (Fig.2, Fig.3).

The patient received a local treatment recommended by the dermatologist, with magistral prescription with salicylic acid, ihtiol, vitamin A, vitamin E, Advantan cream – applied once per day and Diprosalic scalp application.

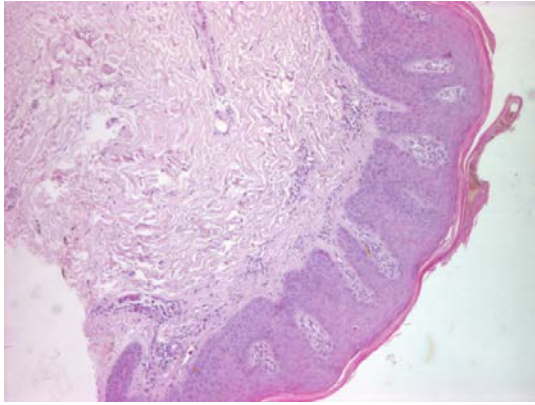


Fig.2. Histopathological aspect

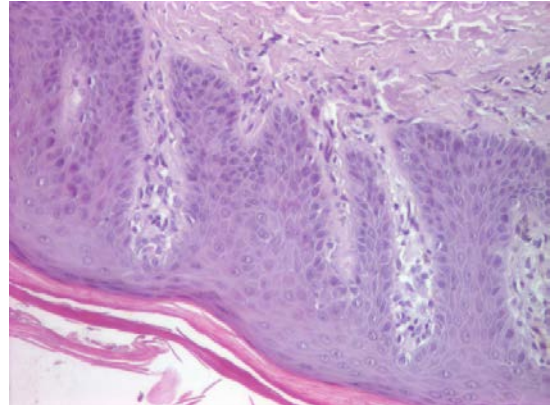


Fig.3. Histopathological aspect



Fig.4. Clinical aspect when discharged

Starting with the 3rd day of the treatment, the patient presented progressive desquamation of the squamae. She was discharged after 7 days, without squamae (Fig.4). Discharge diagnosis: Psoriasis vulgaris in patches and plaques. Nasal staphylococcus aureus. Hypocalcemia. Hypoproteinemia. Tooth cavities. Weight hypotrophy.

Discussions

Psoriasis has been present for centuries; particularities of the disease were identified in the mummified bodies. Robert William, an English physician, described, for the first time, the clinical aspects of psoriasis at the beginning of the 19th century [5].

Psoriasis vulgaris is a chronic inflammatory disease of the skin that affects 2-3% of the worldwide population. In psoriasis vulgaris, immune cells infiltrate the dermis and epidermis and produce inflammation, which can be visible as red, raised and scaly plaque-like lesions [6].

The disease can be classified in light, moderate and severe forms, different scores being used for this classification: BSA (body surface area), PASI score (Psoriasis Area Severity Index), DLQI score (dermatology life quality index). The body surface which is affected under 2% represents a light form of disease, between 2 and 10% we have moderate forms, and over 10% of the body surface there occurs severe psoriasis. PASI score is useful both in the evaluation of the disease severity and for treatment monitoring and this score is highly used in clinical studies. Another score which is used for this purpose is DLQI, which can be found out by means of a 10 question-questionnaire answered by the patient who refers to his last week experience [7].

The studies carried out on psoriasis in children described the possible role of the nasopharyngeal streptococcus in causing the disease [1]. In our case, the nasal exudate revealed the presence of staphylococcus aureus. In the specialty literature, there are controversies related to the role of the staphylococcus aureus in psoriasis pathogenesis.

Psoriasis vulgaris is a cutaneous, inflammatory, chronic disease which is immune-mediated (by T-cells). It is characterized by keratinocyte hyperproliferation and differentiation, associated with angiogenesis and dermic vasodilatation, these processes being initiated by an inborn exaggerated answer to still unknown stimuli and maintained by a persistent

stimulation of the T helper lymphocytes in genetically predisposed individuals [8].

Psoriasis frequently appears during teenage and adulthood and only 10-15% of the cases appear during school age [1].

There is evidence which shows the existence of a genetic predisposition to psoriasis, especially for the one with childhood onset; in our case, too, the patient had his mother's sister with psoriasis. It is estimated that 7% of the patients with psoriasis onset during childhood had someone with this disease in their family[9].

The light forms of psoriasis can be controlled by means of local treatment with: topic corticosteroids, analogies of vitamin D3 (calcipotriol), combinations of topic corticosteroids and calcipotriol, tars, keratolytics, emollients. For the treatment of light forms, phototherapy is also used. The moderate and moderate-severe forms require phototherapy (UVB, UVA, PUVA) and/or systemic treatment. The standard, classical systemic treatment is represented by methotrexate, acitretin, cyclosporine, fumaric acid. Although effective, these treatments present numerous side effects, both in the short and in the long run, and many patients present forms of disease which are resistant to these standard therapies [7,10]. In the past couple of years, biological therapy has been increasingly used to treat the moderate-severe or severe forms of psoriasis, adalimumab, etanercept, infliximab and ustekinumab being available in Romania, at present [10].

Childhood psoriasis has long been recognized clinically, yet few epidemiologic studies are available [2,3]. As an outwardly visible disorder, psoriasis affects children's psychological and physical development and it strongly affects the quality of life [3]. Early diagnosis and appropriate management are particularly important in children to solve long-term disease-related psychological problems [3,10].

Conclusions

The particularities of this case were: an early age onset, the presence of psoriasis family antecedents, and the association with an infection which can determine the occurrence of a guttate psoriasis, the patient initially presenting small guttate patches which, after the initial topic treatment, became extended plaques covered by characteristic silvery squamae. The patient remained in our clinic's and dermatologist's records, with a favorable evolution.

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