Oral Manifestations in a Child with Pityriasis Rosea in Resource-Limited Setting: A Case Report in Rural Area in Indonesia

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Abstract

Oral manifestations of pityriasis rosea are uncommon and probably under reported. We report a 8-year-old girl with asymptomatic two oval plaques on her tongue and herald patches on her skin as a patognomonic sign of pityriasis rosea. The diagnoses was made by anamnesis and physical examination due to limitation of diagnostic testing. The treatment showing improvement within three weeks with oral antihistamine and low potency of topical corticosteroid.

Keywords: Case report • Pityriasis rosea •keratoacanthoma

Introduction

Pityriasis rosea is a self-limited papulosquamos eruption that common in teenegers and young adults, and is likely a viral exanthema currently thought to be related to primary infection or reactivation of human herpesvirus (HHV)-6 and/or HHV-7 [1]. Most cases of pityriasis rosea occur in young healthy persons, between the ages of 10 years and 35 years. The peak incidence is during adolescence, and it is rarely diagnosed before the age of 2 years. There is a slight female predominance [2]. Diagnosis of pityriasis rosea is generally based on the typical clinical findings, but some patient may come with atypical feature such as oral lesions which is uncommon feature in pityriasis rosea [3]. We report a case of pityriasis rosea in a child with oral lesions resemble to aphthous ulcer on the tongue.

Case Report

A 8-year-old girl came to the rural clinic in Riau, Indonesia with a chief complaint of red plaques on her thorax, abdomen, also the back, the lesions were not itchy. The red plaque initially appeared on her abdomen as a single red plaque with a scale on it, then it spread to the thorax, and her back in one week. The parents did not knew that there were two lesions on her tongue. Before the lesion appeared, this young girl complaint a fever, cough, and sore throat. She had not had any oral lesions in the past. There is no history of atopic in her family. In physical examinations showed consciousness of compos mentis, pulse rate 90 times per minute, respiratory rate 20 times per min, temperature 37.2°C. On general status, the head was found to be normocephalic, no anaemic conjunctiva and icteric sclerae were seen on both eyes. There were no lymph node enlargement found on the neck. Ear, nose, and throat examination appeared to be normal. On thorax examination, cor and lungs examination appeared to be normal. On abdominal examination found bowel sound was within normal limit, no distention and no hepatosplenomegaly. Cutaneus examination revealed the red plaques on her thorax, abdomen, and the back. The lesions were multiple, oval, sized 3 cm x 2 cm with collarette scale on it, well-defined margin. The lesions were spread following the cleavage of skin lines. Examination of the tongue showed two oval plaques with well-defined margin, reguler, raised with white borders and atrophic centers that resemble to aphthous ulcers (Figure 1). No additional laboratory or supporting examination were conducted to the resource limited setting. The differential diagnosis of pityriasis rosea, numular dermatitis and tinea corporis were made. The diagnoses of pityriasis rosea

Figure 1. Clinical picture of the patient when the diagnoses made. (A). Pityriasis rosea, erythematous plaque with collerate scale called herald patch on her trunk and back. (B). Oral manifestations geographic tongue-like resemble to apthous ulcers with raised and white border

Figure 2. Clinical picture of the patient after the treatment. (A). Resolution of the lesions on her back and thorax, (B). Resolution of the lesions on her tongue within 3 weeks

was made based on anamnesis and physical examination. The treatment using oral antihistamin of cetirizine and low potency corticosteroid cream showing improvement within 3 weeks (Figure 2), the red plaques on her body and the lesions on the tongue faded.

Discussion

Pityriasis rosea is a self-limited papulosquamos eruption most common in teenagers and young adults with unknown etiology but currently thought to be related to primary infection or reactivation of human herpes virus (HHV)-6 (HHV-6) and or HHV-7 [1,2,4]. It clasically begins as an isolated 3 cm to 5 cm oval plaque on the trunk with a collarette of fine scale just inside the periphery, which plaque is called a herald patch [1].

The incidence in male and female almost same with slightly predominance in female with ratio of female and male 2:1 [2]. More than 75% of patients are between the ages of 10 years and 35 years with peak incidence in adolescence and rarely diagnosed before the age of 2 years [2, 4]. No racial predominance has been documented and the disease usually lasts from 6 weeks to 8 weeks, although great variability exists [5]. The eruption may be precede by various prodromal symptoms such as malaise, nausea, headache, gastrointestinal and upper respiratory symptoms. These symptoms can also occur during the eruption. Pruritus is severe in 25%, mild to moderate in 50%, and absent in 25% of patients [6]. Pityriasis rosea-like eruptions have been reported after vaccinations such as Bacillus Calmette-Guerin (BCG), influenza, H1N1, diphteria, smallpox, hepatitis B, and Pneumococcus. Eruptions have also been seen with drugs like gold, captopril, barbiturates, D-Penicillamine, and clonidine [7]. The classic form of pityriasis rosea called a herald patch present as a well demarcated, thin, oval to round plaque that is usually pink, rose colored, erythematous, or less commonly hyperpigmented. It frequently has a slightly depressed center and fine collarete of scale within the periphery of the lesion [1]. It may occur anywhere, but most frequently located on trunk or proximal extremities. Within a few days to several weeks (average, 7 days to 14 days) the disease enters the eruptive phase. Numerous lesions on the back, oriented along skin lines, give the appearance of drooping pine tree branches what is often reffered to as a "Christmass tree" pattern [4].The mucosal lesions are uncommon in pityriasis rosea, but they have been reported in up to 16% of patients with pityriasis rosea [8]. The oral lesions can have varying morphologies; Martin H categorized these lesions into five groups: punctate haemorrhages, erosions or ulcerations, erythematous macules, erythematous annular lesions, and erythematous plaques. Punctate haemorrhages and erosions were reported most frequently [9]. Oropharyngeal lesions are commoner in children than adults and oral lesions were less common without a hearld patch [6, 10]. We reported a case of children with tongue lesions resemble to apthous ulcer, Nouf and Mohammed reported the same cases. In their study, nouf and mohammed reported 60 cases of pityriasis rosea with oral lesions. Approximately 60% of patiens were younger than 20, and 42% were younger than 10, 64% were female and 67% African. The sites most commonly affected were the buccal mucosa (63%), palate (46%), tongue (15%), and lips (11%) [3]. The diagnosis of pityriasis rosea is usually clinical. A set of clinical diagnostic criteria was proposed in 2003, in this criteria the patient had to have 3 essential features and at least 1 of 3 optional features. The 3 essential features were discrete circular or oval lesions, scaling on most lesions, and a peripheral collarette of scale with central cleareance on at least 2 lesions. The optional criteria included a truncal and proximal limb distribution with less than 10% of lesions distal to the mid upper arm and mid thighs, distribution of most lesions along the ribs. They also proposed 3 exclusion feature, including multiple small vesicles at the center of 2 or more lesions, most lesions on palmar or plantar skin surfaces, and clinical or serological evidence of seconday syphilis [11]. In this case report, we found a multiple oval lesions with a peripheral collarete scale with central clearance distributed along the ribs and abdomen without any vesicles on the lesions and there was no lesions on palmar or plantar skin surfaces, unfortunately we did not done any laboratory examination due to limited setting. The diagnosis was made by clinical features. The histologic features of pityriasis rosea are nonspesific and patients with the classic presentation often do not require skin biopsy as the diagnosis can confidently be made on clinical grounds alone. The changes of epidermal seen include parakeratosis which may be focal, multifocal, or confluent; orthokeratosis; mild acanthosis; a thinned granular layer; and spongiosis often with some degree of lymphocyte exocytosis. There is typically a superficial perivascular lymphocytic infiltrate and variable extravasated erythrocyte in the dermis layer [12]. Herald patch shows less spongiosis, more hyperplasia, and both superficial and deep perivascular infiltration also more acanthosis [13,14]. Drago et all in their study detected virus like particles in various stage of morphogenesis, mature enveloped virions appeared as a typical HHV, measuring about 160 nm to 200 nm in diameter and containing an electrondense cylindric core, a capsid, and envelope with typical spikes and very distinct tegument layerbetween the capsid and the envelope [14]. Because pityriasis rosea benign and self-limited, no treatment is needed. Group V topical steroids and oral antihistamines may be used as needed for itching.

Oral erythromycin was effective in treating patiens with pityriasis rosea in the other hand study found there is no significant difference between groups that given with erythromycin and groups with placebo [15, 16]. Drago et all found that using high dose of acyclovir 800 mg 5 times daily showed 79% patients fully improvement within 18 days with 4% of the placebo group 37 days [17]. This study also supported, acyclovir was superior to placebo for complete regression of lesions at first week [18].

Conclusion

Pityriasis rosea is common dermatological disorder which mainly diagnosed by it clinical features. Oral lesions in pityriasis rosea are uncommon but probably under reported. Limited resource settings may be a burden to diagnosis and treatment of pityriasis rosea. We reported a 8 years old girl with pityriasis rosea showing improvement within three weeks with oral antihistamine and low potency of topical corticosteroid.

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