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Oral psoriasis in an 11-year-old child: a case report

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Summary. Psoriasis is a chronic inflammatory dermatosis that very rarely involves the oral mucosa. There is no consistent pattern of clinical presentation in the oral cavity. Furthermore, manifestations of intraoral psoriasis in paediatric patients are extremely rare and only one case appeared to have been reported in the literature to date. In this paper we report a case of intraoral psoriasis in an 11-year-old child who had been previously diagnosed as having dermal psoriasis.

Introduction

Psoriasis is a chronic inflammatory condition primarily affecting the skin. Approximately 1–3% of the global population is affected by this chronic disorder which has a significant social and economic impact [1,2]. Three different forms of the disease have been identified, namely: psoriasis vulgaris, psoriasis inverta and pustular psoriasis [2]. Psoriasis is characterized by erythematous papules that gradually enlarge at the periphery forming plaques. Plaques are covered by silvery scales. If these scales are removed, tiny bleeding points can be disclosed. This feature is termed Auspitz's sign [3]. Primary lesions coalesce to form plaques which may assume various configurations. Generally lesions are symmetrical [4] and grouped on the extensor surfaces of the extremities, scalp, anterior hairline, nails, perianal and peri-oral areas [5].

The aetiology of psoriasis remains unknown [6] although it is considered to involve an increased rate of epithelial cell proliferation [7–11]. Infection, trauma, metabolic disturbances and endocrine dysfunction have been considered as triggering factors in the initiation of psoriasis [3,8]. Although there appears to be a strong genetic component in the pathogenesis of psoriasis [3], the precise mode of inheritance remains unresolved [1].

For many years it has been thought that oral psoriasis lesions do not exist and any cases of concomitant lesions in the oral cavity are actually a result of leukoplakia or lichen planus [3]. However, it is now believed that oral lesions of psoriasis do exist although the incidence is low [4,12,13]. In 1997, Younai and Phelan summarized 46 cases of oral psoriasis for the period of 1903–95. According to their review of literature, Oppenheim and Thimm were the first to describe oral psoriasis [5]. Oral psoriasis is uncommon in childhood [3] and, as pointed out by Younai and Phelan [5], only one report is available in the English language literature to date.

In this paper we report a case of oral psoriasis in an 11-year-old child with coexistent skin lesions.

Case report

An 11-year-old girl attended the Oral Medicine clinic, Dental Hospital (teaching), Faculty of Dental Sciences, University of Peradeniya, Sri Lanka with a complaint of 'a red patch' on the right side of the buccal mucosa. Her medical records revealed that she had dermal psoriasis, which had been diagnosed at a Dermatology clinic in another hospital one year previously. The patient presented with signs of dermal psoriasis. The lesions were found on the skin over her elbows, knees and fingers (Figs 1 and 2). Physical

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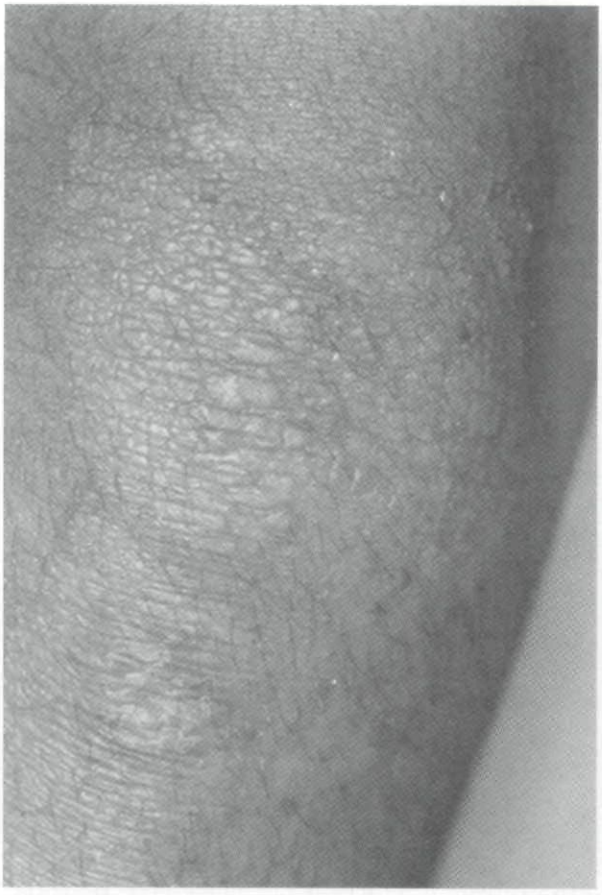

Fig. 1. Typical psoriatic lesions on the skin over the left knee.

Fig. 2. Extremities with psoriasis.

examination revealed papulosquamous eruption, which showed positive Auspitz's sign. Her past medical history was otherwise unremarkable. There was no family history of psoriasis or any other dermatological conditions. Intraoral examination revealed a bright red patch over the right side of the buccal mucosa measuring 2×2 cm with a smooth surface (Fig. 3). Her oral hygiene was satisfactory and the other areas of the oral mucosa appeared uninvolved.

An incisional biopsy was carried out under local anaesthesia from the involved buccal mucosa. Histopathological features in haemotoxylin and eosin stained section included parakeratinized squamous epithelium with psoriasiform hyperplastic rete pattern (Fig. 4). The epithelium showed accumulation of neutrophils (Fig. 5). There were no fungal hyphae found in the superficial layers of the epithelium. Based on the presence of skin lesions and positive histopathological features, a diagnosis of oral psoriasis was made.

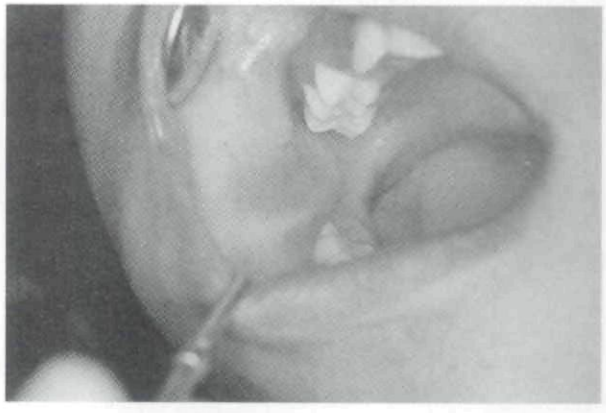

Fig. 3. The oral lesion with smooth surface on the right side of the buccal mucosa.

As the patient was asymptomatic, no treatment was initiated. However, patient and parents were reassured, with special emphasis on the fact that the lesion was not a cancer, which had been prevailing in the minds of the parents. Instructions were given

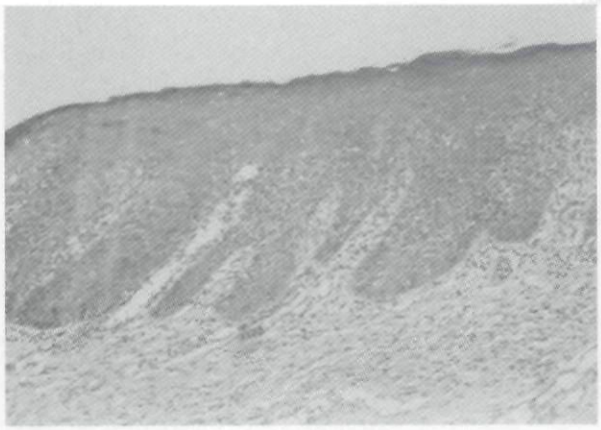

Fig. 4. Photomicrograph of oral lesion (H&E) showing parakeratotic stratified squamous epithelium with elongated rete morphology. There is mild chronic inflammatory cell infiltration in the underlying connective tissue (magnification × 100).

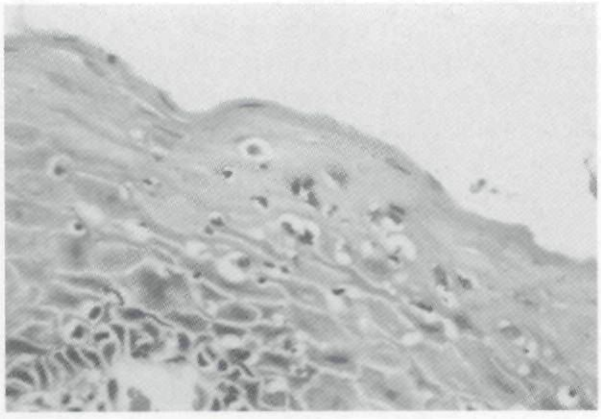

Fig. 5. High power photomicrograph showing polymorphonuclear leucocyte infiltration in the superficial layers of the epithelium (magnification × 400).

to maintain good oral hygiene and the patient was placed on regular follow–up. The patient was already receiving treatment for the dermal lesions at a Dermatology clinic.

Discussion

Oral manifestations of psoriasis are an uncommon finding [14,15]. In a series of 200 patients, Heitanen and colleagues [13] found that only four (2%) patients had oral lesions consistent with psoriasis. Younai and Phelan [5] reviewed 57 cases in the English and non–English European literature whilst reporting a case of mucositis as a manifestation of psoriasis in the mouth. In their review, these authors excluded cases with geographical tongue – a finding frequently seen in patients with skin psoriasis.

Since the report of Younai and Phelan, few cases have been reported in the English language literature [16–21]. Among them, two were of peri-oral lesions without involvement of intraoral mucosa [18,20] and one involved a split skin graft with clinically normal adjacent oral mucosa [17]. Three types of oral lesions have been described: (i) tiny, well-defined, grey-yellowish white round or oval shaped lesions; (ii) geographical tongue, and (iii) diffuse erythema of the oral mucosa especially found in acute exacerbations [22]. Oral lesions may present on the buccal mucosa, lip, palate, tongue, or gingiva [5].

Psoriasis usually has its onset during the second and third decades and tends to persist throughout life. According to Younai and Phelan [5], the age of onset ranges from 13 to 74 with a mean of 44·3. According to the literature, there has been some controversy whether intraoral lesions persist in the absence of dermal lesions. Most authors agree that intraoral psoriasis appears concomitantly with skin lesions. Hence, as a general rule confirmation of the diagnosis should be made when biopsy proves skin and oral lesions to be consistent with features of psoriasis [1,15]. Younai and Phelan [5] had identified eight cases of isolated oral psoriasis in their review of 46 patients. In the more recent past, Rozell and colleagues [16] reported a case of oral psoriasis without dermal involvement. Furthermore, Rahman and Fickrel reported a case of peri-oral psoriasis without involvement of other areas of skin [18].

Although the precise mode of inheritance remains unknown, genetic susceptibility to psoriasis has been suggested by several authors [1]. There was no family history in this case.

The prognosis of psoriasis may vary, with exacerbations and remissions. Rarely, psoriasis may progress to a clinically severe form such as generalized pustular and psoriatic erythroderma, which may even be fatal [1]. Little is known about the treatment of oral psoriasis and treatment is mainly symptomatic using topical anaesthetic rinses, diphen hydramine hydrochloride and alkaline rinses [1,23]. Improvement and maintenance of good oral hygiene is of utmost importance in minimizing discomfort in the mouth [21].

The clinical differential diagnosis may include eczema, lupus erythematosis, lichenplanus, neurodermatitis, syphilis, desquamative gingivitis, Reiter's syndrome, geographical tongue, candidosis and erythroplakia [4,21,24,25]. Histologically, a few

lesions in the oral cavity may show similarities to psoriasis. These include erythema migrans and candidiasis. In both of these conditions, features such as psoriasiform rete hyperplasia and intraepithelial neutrophils are frequently observed. The histological diagnosis of oral psoriasis is rather difficult, as the typical features of skin psoriasis such as Munro abscess formation frequently do not occur in oral lesions. The diagnosis should therefore ideally be reached only with clinico–pathological correlation. Presence of skin lesions and the absence of other features of systemic illness together with the histopathological features we described confirmed the diagnosis of oral psoriasis in our patient. As a result of the lack of oral symptoms, we did not initiate any treatment especially for the oral lesions. The patient's oral hygiene was satisfactory and instructions were given to maintain good oral hygiene. We also reassured the parents. This was to remove the fear of malignancy that was prevalent in the parents' mind. Cancerphobia is a common problem in Sri Lanka because of the high prevalence of oral cancer in the population.

Psoriasis interferes with daily activities through its distressing symptoms and signs such as pain, itching, burning and dry skin. Furthermore, its cosmetic impacts may adversely affect psychological well being. Participation and interaction in social activities may be significantly affected. Psoriasis in a child may also interfere with academic and sports activities at school. Hence psoriasis may affect the physical and psychological well being of a child at least as much and possibly more than in an adult [1,2]. Clinicians should therefore pay particular attention and careful follow-up in order to minimize morbidity in child patients.

Résumé. Le psoriasis est une dermatose inflammatoire chronique ne concernant que rarement la muqueuse buccale. Il n'y a pas de schéma classique de survenue dans la cavité buccale. De plus, les manifestations intra-buccales du psoriasis chez les enfants sont extrêmement rares, peu décrites dans la littérature puisqu'un seul cas a été rapporté. Cet article présente un cas de psoriasis buccal chez un enfant de 11 ans chez qui un diagnostic de psoriasis cutané avait auparavant été posé.

L'examen intra-buccal a révélé un placard rouge vif du côté droit de la muqueuse buccale, les autres zones n'apparaissant pas touchées. L'examen histopathologique des lésions après coloration à l'hématoxyline et à l'éosine a montré un épithélium squameux parakératinisé avec pattern de psoriasis hyperplasique. Comme ce patient était asymptomatique, aucun traitement n'a été instauré au-delà de réconforter l'enfant et les parents.

Zusammenfassung. Psoriasis ist eine chronisch entzündliche Dermatose die vergleichsweise selten die orale Mukosa befällt. Es gibt kein einheitliches Muster klinischer Erscheinungen in der Mundhöhle. Weiterhin sind orale Manifestationen der Psoriasis gerade bei Kindern extrem selten, in der bisherigen Literatur findet sich erst ein Fallbericht. In dem hier vorliegenden Bericht stellen wir den Fall eines 11jährigen Mädchen vor, bei dem eine kutane Psoriasis vorbekannt war.

Die intraorale Untersuchung ergab einen breiten roten Fleck der sich über der rechten Seite der Wangenmukosa erstreckte. Andere Areale erschienen nicht betroffen. Histopathologisch zeigte sich in HE- Schnitten parakeratinisiertes Plattenepithel mit einem psoriasiformen hyperplastischen Netzmuster. Da die Patientin asymptomatisch war, wurde keine Behandlung in die Wege geleitet, es erfolgte nur eine Beratung von Kind und Eltern.

Resumen. La psoriasis es una dermatosis inflamatoria crónica que muy raramente implica a la mucosa bucal. No hay un patrón consistente de su presentación clínica en la cavidad oral. Además, las manifestaciones de psoriasis intra-oral en pacientes pediátricos son extremadamente raras y en la literatura sólo se ha informado de un caso. En este trabajo informamos de un caso de psoriasis intra-oral en un niño de 11 años que ha sido diagnosticado previamente de psoriasis dermatológica.

El examen intra-oral reveló un placa eritematosa brillante en el lado derecho de la mucosa bucal, otras áreas de la mucosa bucal estaban implicadas. Las características histopatológicas de la sección con hematoxilina y eosina mostró epitelio escamoso paraqueratinizado con un patrón reticular hiperplásico psoriasiforme. Puesto que el paciente estaba asintomático y excepto tranquilizar al niño y a sus padres, no se inició ningún tratamiento.

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