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PSORIATIC PATIENT PRESENTING WITH OLIGODONTIA

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ABSTRACT
Psoriasis is a common, chronic, relapsing/remitting, immune-mediated systemic disease characterized by skin lesions including red, scaly patches, papules and plaques, which usually itch. The skin lesions seen in psoriasis may vary in severity from minor localized patches to complete body coverage. It affects any area, including the scalp, palms and genitals. Fingernails and toenails are frequently affected (psoriatic nail dystrophy) and can be seen as an isolated sign. Inflammation of the joints, known as psoriatic arthritis, affects up to 30% of individuals with psoriasis. It can occur at any age but usually develops between 15 and 35 years of age and may persist throughout a person's lifetime with periods of exacerbation and remission. The hyperproliferative state of the affected epidermis produces a turnover rate that is up to eight times greater than normal. Instead of being shed, the skin cells pile up, causing the visible lesions. Oral manifestations of psoriasis are rare clinical observations. Lesions have been reported on the lips, buccal mucosa, palate, gingiva, and floor of the mouth. We document a case of psoriasis showing a skin lesions, arthritis, and oral manifestations (oligodontia being patient's chief concern). As put forth through this case report, a potential link between psoriasis and oligodontia has scope for further study.

INTRODUCTION

Psoriasis is a common dermatological, chronic, relapsing/remitting, immune-mediated systemic disease characterized by skin lesions including red, scaly patches, papules, and plaques, which usually itch [1,2]. The skin lesions seen in psoriasis may vary in severity from minor localized patches to complete body coverage [1]. The disease affects 2–4% of the general population [3].

It can occur at any age but usually develops between 15 and 35 years of age and may persist throughout a person's lifetime with periods of exacerbation and remission [4].

The exact etiology of psoriasis is unknown, but it appears to be a multifactorial disease with genetic, immunological, and psychosomatic factors [5]. Various triggers, such as trauma, viral and streptococcal infection, stress, sunlight, HIV and drugs (Lithium, Beta-blockers, Antimalarials and NSAIDs -- such as ibuprofen or naproxen, smoking and alcohol.

Psoriasis is considered to be an autoimmune disease that results in the overproduction of skin cells. The process begins when a person's immune system fights against an infection, but the antibodies continue to attack normal cells. A type of white blood cell (called a T cell) that is supposed to regulate immune response fails to do its job, triggering inflammation and abnormal skin cell growth. In people with psoriasis, this process takes about three to seven days. As a result, cells that are not fully mature build up rapidly on the surface of the skin, causing red, flaky, crusty patches covered with silvery scales.

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of individuals with psoriasis [6].

Oral manifestations of psoriasis are, well-defined grey to yellowish white tiny round to oval lesions, fiery red erythema of oral mucosa and tongue seen in acute form. Geographic tongue is more commonly seen. Histopathologically, intraepithelial microabscess (munro's abscess) more common [7]. Lesions have been reported on the lips, buccal mucosa, palate, gingiva, and floor of the mouth [8]. They have been described by Weathers as "psoriasiform" lesions [**9**]. We document a case of psoriasis showing a skin lesions, arthritis, and oral manifestations, oligodontia being patient's chief concern.

Case Report

A 15-year-old female presented to the department of pediatric dentistry Al- Ameen Dental College, Bijapur, Karnataka for dental rehabilitation of her missing teeth. The patient's medical history was evaluated by questionnaire and interview. The patient had been diagnosed with psoriasis 7 years back. There was a family history of same dermatological problems to her cousin brother. At the time of examination, the patient was using creams, ointments, lotions, and shampoos based on tar. An extensive skin lesions, arthritis, and oral manifestations were observed.

Extraorally, the patient presented with "psoriatic lesions" on face and extremities [Figure 1,2,3 &4]. A typical plaque form of psoriasis appeared as patches of raised, reddish skin covered by silvery-white scales. Skin of the face, ear, and lips appeared shriveled giving a geriatric look [Figure 1]. Small brown spots were also observed on the knee joint [Figure 2]. Toenails and fingernails appeared pitted, thick, and yellowish in color [Figure 3 & 4].Introrally, presence of only the permanent left second molar on maxillary and mandibular arch [Figure5] and remaining permanent teeth were missing.

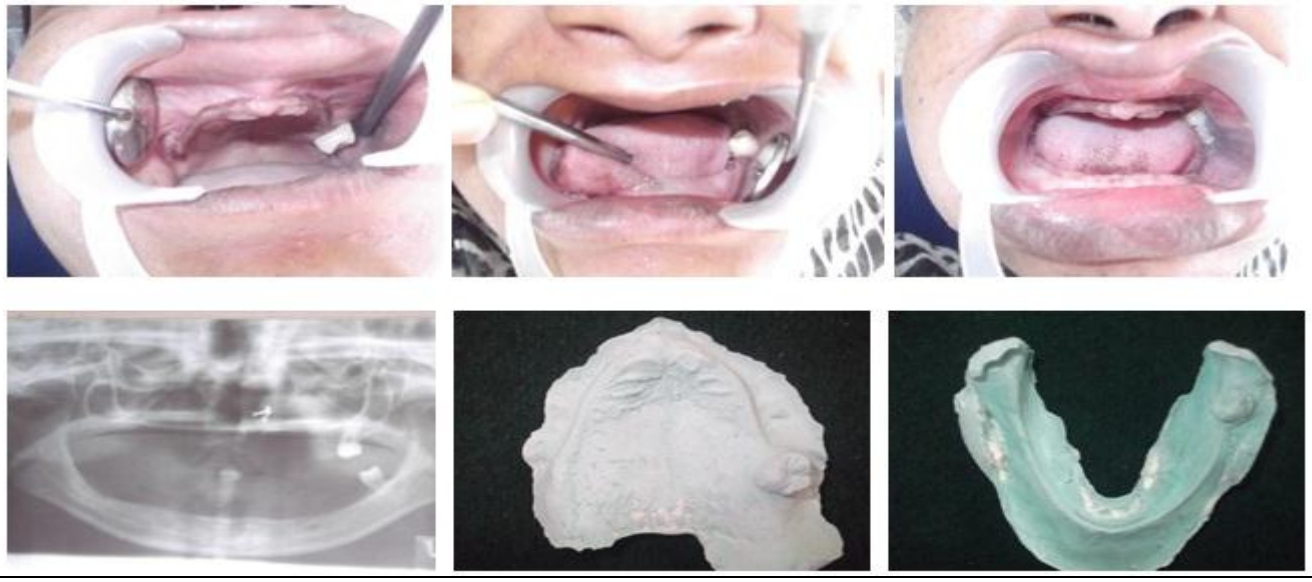
Fig 1. Frontal view photograph of the patient showing "psoriatic lesion "on lips and adjacent areas appeared shriveled giving a geriatric look to a 15-year old

Fig 2. Plaque form of scalp lesion showing silvery scales and erythematous margins on knee

Fig 3. Plaque form of scalp lesion showing silvery scales and erythematous margins on palm

Fig 4. Plaque form of scalp lesion showing silvery scales and erythematous margins on foot

Fig 5. Oligodontia and presence of only permanent second molars on left maxillary and mandibular arch



DISCUSSION

Clinically, skin lesions appear as plaques covered by silvery scales. When the scales are removed, small pinpoint bleeding is seen (Auspitz sign) [8]. Skin lesions are predominantly found on the individual's extremities and knee. The microscopic appearance of psoriasis varies with lesion age and activity. The early lesion shows parakeratosis and acanthosis with budding at the tips of the rete ridges and thinning of the suprapapillary plate [9]. Polymorphonuclear leukocytes migrate through the epithelium with the formation of intraepithelial microabcesses. Although the formation of microabcesses (Munro abscesses) is a characteristic of psoriasis, it is not specific to the disease nor are the microabcesses always present [10]. Within the connective tissue papilla, engorgement of the capillaries occurs and a mixed inflammatory cell infiltrate is commonly seen [11]. In the oral cavity, this microscopic presentation, known as psoriasiform mucositis, is shared by psoriasis, Reiter's syndrome, benign migratory glossitis (also known as geographic tongue), and erythema migrans (lesions that are clinically and histologically similar to geographic tongue but involve oral mucosa other than the dorsum of the tongue) [8].

Prevalence of psoriasis is 1-3% in general population, whereas prevalence of psoriatic arthritis is 0.3-1%. Out of them, 5-10% experiences some disability [12, 13]. Psoriatic arthritis usually first appears between 30 and 50 years of age-often months to years after skin lesions first occur. However, not everyone who develops psoriatic arthritis has psoriasis. About 30% of people who get psoriatic arthritis never develop the skin condition.All types of psoriasis, ranging from mild to severe, can affect a person's quality of life [14]. Even the simple act of squeezing a tube of toothpaste can hurt. Living with this lifelong condition can be physically and emotionally challenging.

Embarrassment is another common feeling found in such school-going children. What if you extended your hand to someone and the person recoiled? Imagine getting your hair cut and noticing that the stylist or barber is visibly uncomfortable. How would you feel if you spent most of your life trying to hide your skin?

Although there is no cure for psoriasis, treatment is usually effective. The skin becomes less scaly and may look completely normal: moisturizing creams and ointments will moisturize dry skin and are a substitute for soap when washing the skin. Some of these bath oils contain tar or antiseptics, which can provide other benefits in addition to the moisturizing effect. Regular daily doses of sunlight taken in short exposures can help to improve psoriasis. Sunburn may make psoriasis worse. Tar creams, ointments, lotions, and shampoos help to reduce scaling and have an anti-inflammatory effect. Vitamin D based topical (applied to the skin) preparations can be effective. Salicylic acid based applications can help to remove thick layers of overgrown skin and scales. Mild steroid creams and ointments can be used for short periods to treat psoriasis on the face or in body folds. The treatment plan of the patient was full mouth prosthetic rehabilitation for improving aesthetics and function.

CONCLUSION

With the emergence of several new therapies, including the biologic agents, more and more children are reporting a greatly improved quality of life. We as dental surgeons should view these children with compassion and give our utmost care to provide oral relief and rehabilitation. As put forth through this case report, a possible link between psoriasis and oligodontia has scope for further investigative research.

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