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Fordyce Granules Associated with Hypopigmentation of Facial Skin

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Abstract Fordyce granules are referred to as benign sebaceous glands, which are ectopic in distribution and are characterized by the multiple light yellow raise papules, occurring mainly in the lip region. Observed mainly in adults, the disease is rarely associated with physiological skin hypopigmentation. This case report describes a case of an elderly patient who presented depigmentation of skin over the face with unilateral Fordyce granules on the left side of the buccal mucosa.

Keywords: *sebaceous glands, sebum, crown, macule, papule*

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1. Introduction

The sebaceous glands are microscopic exocrine (Holocrine) glands in the skin that secrete sebum (fat, tallow), an oily or waxy substance. Their functions include mainly lubrication and diminishing water permeability of surrounding skin, hair, eyelids and areola. Physiologically their function allows delaying dehydration in hot conditions, whereas in colder condition, the sebum produces a lipid coating that repels water. It primarily contains triglycerides, wax esters, Squalene and free fatty acids like sapienic acid, which is unique to humans and is related to the development of acne. [1,2,3,4] Fordyce spots, or Fordyce granules, are ectopic sebaceous glands found on the genitals and oral mucosa. They show themselves as yellowish-white spots (milk spots). [5] Reported first on vermilion border of the lips, oral mucosa, they also have been reported on the genital mucosa (glans penis and labia minor), esophagus, gastroesophageal junction, uterine cervix, sole of the foot, thymus and tongue [6-11].

Clinically they appear as small, painless, raised, pale, red or white spots or bumps about 1 to 3mm in diameter and are not associated with any disease or illness, however certain physiological variations may be present on the skin in other parts of the body. This clinical report is significant for two reasons, one is its rare association with facial hypopigmentation and the second is its unilateral distribution.

2. Case Report

A 52-year-old man was referred from the department of oral medicine to the department of Prosthodontics for consultation regarding restoration of an endodontically treated tooth. Patient's medical history was non – contributory. Extra oral examination disclosed light brown colored patches diffusely spread over the region of the left forehead (Figure 1A) and left cheek (Figure 1A). The patient reported that the patches were present since birth. Intra oral examination revealed a completely dentulous arch with extensive stains and calculus. Oral mucosal examination showed closely-grouped asymptomatic yellow maculopapules, 1–2 mm in diameter, on the left buccal mucosa, which was clinically consistent with Fordyce granules (Figure 2a). The appearance of the right buccal mucosa and other parts of oral mucosa was normal. The patient did not report any systemic abnormality.

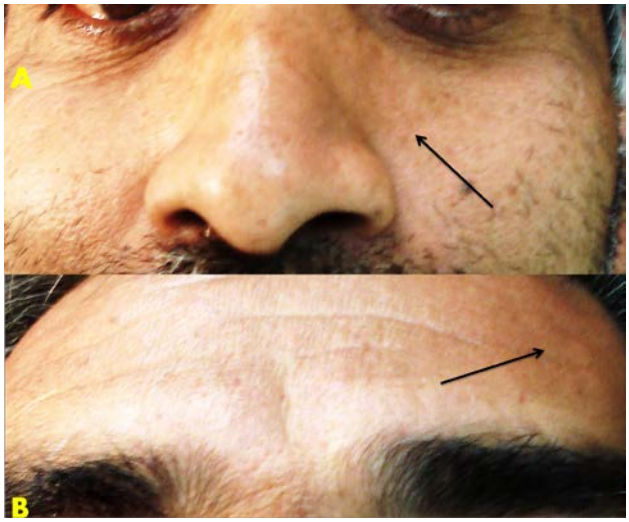

Figure 1. Facial areas of depigmentation (arrow marks) more prominent in (A) the area of lateral surface of the bridge of nose and (B) forehead region

Histopathologically, the observed lesions were multi centric (Figure 2 B) with slightly elevated papules and plaques. Histological picture was that of a normal sebaceous gland and consisted of a single lobule or gland located in the submucosa. The lobule was well formed and consisted of small clusters of mature sebocytes with sebaceous duct.

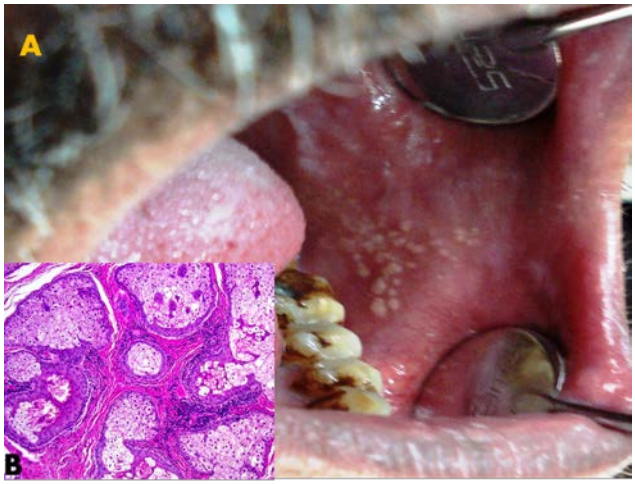

Figure 2. Fordyce granules present on the (A) left buccal mucosa (B) Histopathology

3. Discussion

Fordyce spots present an ectopic variation of normal sebaceous glands. The difference though is that the glands are otherwise associated with hair follicle, which is not true for Fordyce spots. The ducts in this case open directly onto the mucosa. These lesions affect both sexes, and usually become prevalent after puberty. They may be bilateral and rather symmetrical. Unilateral cases have been less reported. This case presents one such rare occurrence, especially the skin hypopigmentation seen in this case. However, unilateral occurrence has been reportedly associated with facial nerve paralysis [12].

The relation between Fordyce spots and the depigmentation of the skin cannot be established in this case as the skin condition has been present since birth. It is not clear whether this is a coincidence or a true relationship. The patient could not provide the chronological information about the development of Fordyce spots or the skin depigmentation. Referable to the above mentioned reasons biopsy was considered that is usually not the case, because they are readily diagnosed clinically. The condition being asymptomatic in nature, therefore, offers less treatment demands. Treatment may be demanded by the patient for cosmetic reasons since the lesion does not resolve. Carbon dioxide laser and oral isotretinoin or topical trichloracetic acid/bichloracetic acid, 5-aminolevulinic acid – Photodynamic therapy and chemical cauterization are some of the options for such cases [13,14].

4. Conclusion

Unilateral Fordyce spots have been rarely reported and there is no such report of the lesion associated with hypopigmentation of the skin. This article in the form of a case report is a further addition to the possible variations that could be associated with Fordyce spots

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