



FORDYCE GRANULES, AKA FORDYCE SPOTS & LINEA ALBA

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DEN1114: Histology and Embryology

FORDYCE GRANULES: DESCRIPTION

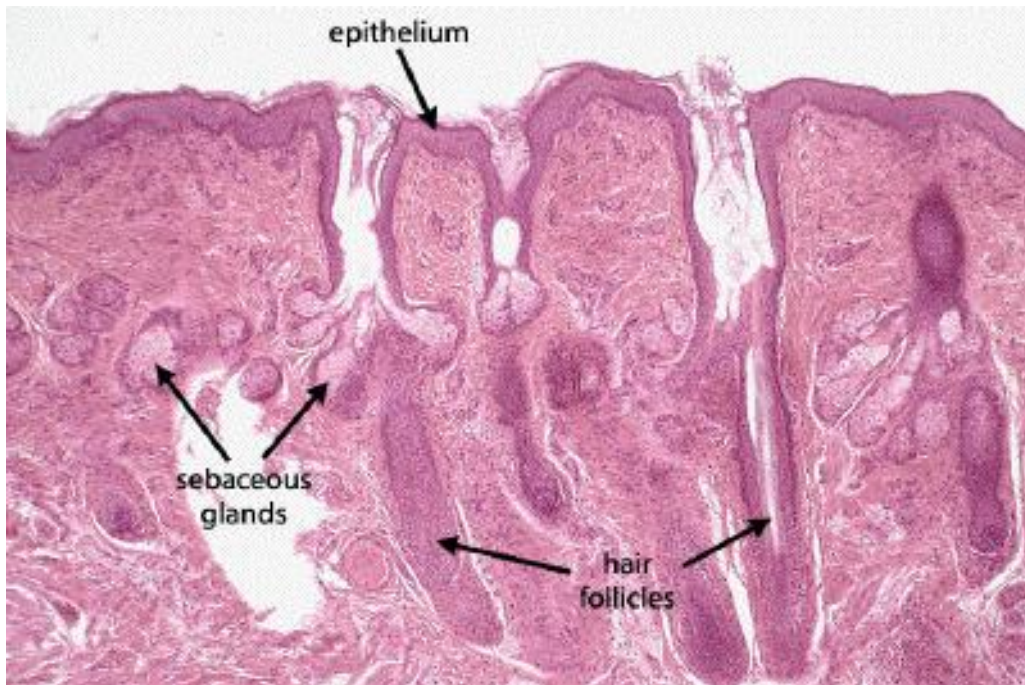
- What are they?
 - Deposits of sebum, an oily substance, from trapped or misplaced sebaceous glands in the skin
 - HARMLESS
- What do they look like?
 - Small, yellowish or whitish bumps
 - Most bumps measure 1-3mm in size
 - Usually found in clusters
 - More visible when the skin is stretched out
- Where might you see them?
 - Labial and buccal mucosa inside mouth
 - On lips (on vermillion border)



ETIOLOGY (CAUSES)

Skin contains sebaceous glands, which produce sebum to lubricate skin around a hair follicle. Sebum exits through a pore.

Typical epithelium



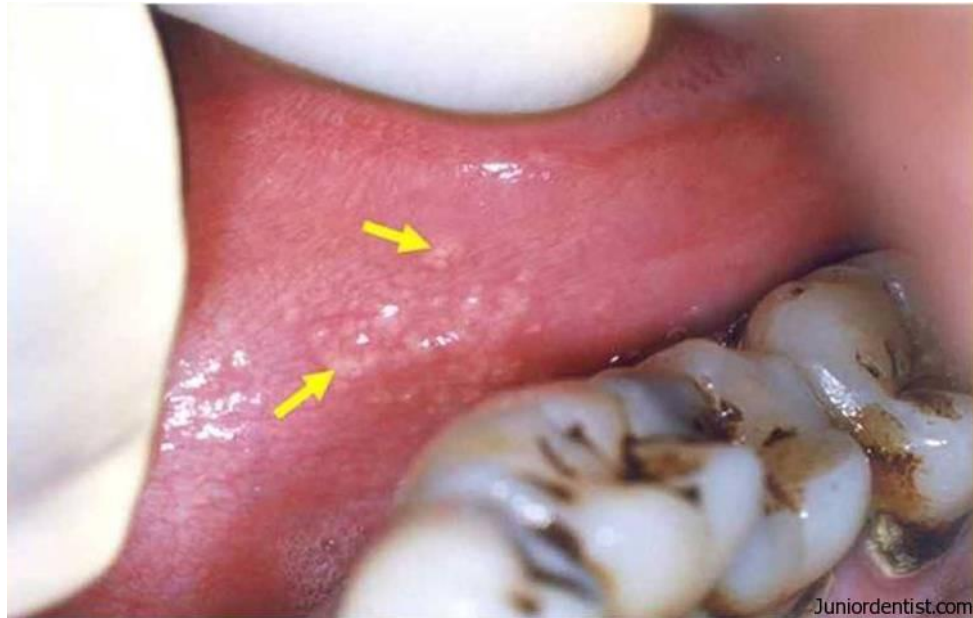
Without a hair follicle, there is no outlet for the sebum, so it collects and forms a Fordyce granule.

Trapped sebaceous gland



WHO IS AFFECTED?

- Anyone may have Fordyce spots. In fact, most people (80%) do!
- Often appear in children over 3 years of age
- Increase during puberty
- Become more visible with age
 - The overlying tissue becomes thinner so the granules show up better.



DENTAL IMPLICATIONS

- Spots are harmless, and have little significance other than cosmetic.
- May cause anxiety and/or depression over appearance
- Misdiagnosis: may think a more serious disease is present

OUR RESPONSIBILITIES

- Treat patient with respect and understanding.
- Listen to concerns and answer questions.
- Reassure patient that Fordyce granules are harmless.
- If you notice scabbing or marks of squeezing, advise patient that this is damaging to the skin and may lead to infection.
- If patient has a significant cosmetic concern, recommend a visit to a dermatologist. Several treatments are available.

- Topical Treatments, ex. bichloracetic acid
- Laser treatment

- Electrodesiccation
- Chemical Cauterization

- Micro-Punch treatment



FOOD FOR THOUGHT

- There may be a connection between Fordyce spots and hyperlipidemia, high levels of lipids (fats) in the blood. Hyperlipidemia is a risk factor for atherosclerosis and cardiovascular disease.
- In patients presenting with many Fordyce granules (+100) and additional risk factors, it may be helpful to refer them to their doctor for blood tests.
- URL for study article:
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4241607/>

LINEA ALBA: DESCRIPTION



- What is it?
 - A hyperkeratinization (callousing) of the tissue
 - HARMLESS
- What does it look like?
 - A white line or ridge that runs horizontally across the inner lining of the cheek
- Where might you see it?
 - On buccal mucosa; often bilateral
 - Found at the location where the maxillary and mandibular teeth come together during occlusion
 - May also be found on the edge of the tongue

ETIOLOGY (CAUSES)

- Friction from repeated irritation
 - The epithelial tissue is protecting itself from repeated trauma.
- Biting the cheeks or tongue (accidental or intentional)
 - Malocclusion from crooked/broken teeth
 - Habit
 - During sleep
- Ill-fitting dentures or irritating orthodontic appliances
- Overly aggressive oral hygiene



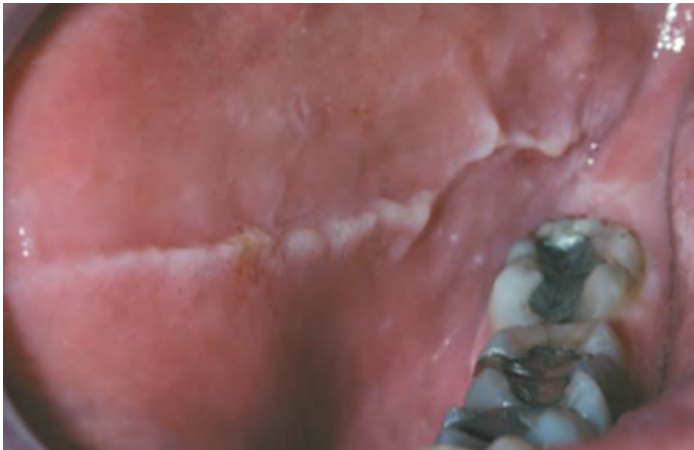
WHO IS AFFECTED?

- May occur at any age once teeth have erupted
- May affect children and adults
 - Children/adolescents with orthodontia
 - Patients with dentures
 - Anyone with poor occlusion or habit (cheek-biting or sucking, tongue-biting)
 - In general, adults more than children, and women more than men



DENTAL IMPLICATIONS

- Harmless; not a sign of a malignant medical condition
- Patient may find linea alba to be distressing, especially if the keratin layer becomes very thick
- Patient may not wear required prosthodontics or orthodontic appliances due to rubbing
- May occur simultaneously with other symptoms
 - discomfort in cheeks/tongue, in TMJ, or in facial muscles
- Often a sign of additional problems
 - emotional/psychological distress
 - need for an adjustment of dentures and orthodontic appliances
 - education on gentle oral hygiene



OUR RESPONSIBILITIES

- Treat patient with respect and compassion.
- Patient may have anxiety because they are unsure of what linea alba is.
 - Address concerns by providing information.
 - Often mistaken for oral cancer
- Try to discern cause, and remedy situation if possible.
 - Use motivational interviewing techniques to obtain information.
 - Refer to dentist/orthodontist if cause is dentures/orthodontic appliances or uneven teeth.
 - Orthodontic wax
 - Advise patient that stopping a harmful behavior or habit will allow linea alba to decrease.
 - Relaxation techniques
- Praise patient for oral hygiene efforts, but advise patient to be more gentle.

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