Clinical Presentation

A 24-year-old male attended the ambulatory clinic with a history of fleshy swelling in the upper gingival margin between the central incisors for the past few months.

The examination showed a fleshy, granular, pedunculated growth arising from the gingival margin of the upper jaw between the central incisors, and that his oral hygiene was poor (Figure 1).

Figure 2. Fleshy, granular, pedunculated growth in the upper gingival margin.

The growth was excised completely under local anesthesia and was sent for histopathology.
The histopathology (Figures 3 and 4) was reported as a benign fibroepithelial polyp (epulis).

Histopathology showed a pedunculated fragment of gingiva, lined by reactive squamous mucosa with pseudoepitheliomatous hyperplasia. Submucosa was slightly myxoid with moderate chronic inflammation.

Questions

1. What is your diagnosis?
2. What is the cause of this pathology?
3. What is the histopathology picture?
4. How is it differentiated from congenital epulis?
5. What is the differential diagnosis of epulis?
6. What is the prognosis?
7. What is the treatment modality for epulis?

Discussion

Epulis fissuratum is a pseudo-tumour growth located over the soft tissue of the vestibular sulcus caused by chronic irritation with poorly adapted dentures, leading to a variable degree of hypertrophy and hyperplasia. In some cases
this is caused by poor oral hygiene leading to chronic inflammation. These are also called granular cell tumours of the oral cavity.\(^2\) Epulis may present as pedunculated or sessile, fleshy granular growth.

Gingival fibromatosis is a differential diagnosis for epulis, where inflammation of the gingival margin is the main cause; in some there is a history of taking drugs like phenytoin sodium, calcium channel blockers (nifedipine), and a few are on immunosuppressant drugs (cyclosporine) (Figure 5). In some, systemic diseases such as leukemia, Wegner’s granulomatosis, and sarcoidosis are to be blamed and a few are seen during puberty, pregnancy, and in some who have genetic and familial prevalence.\(^3\)

Congenital epulis is, at times, multiple and more predominantly seen in females, probably stimulated by intrauterine stimulus by fetal ovaries, which are of unknown etiology and histologically similar to adult granular cell tumour\(^4\) but immunological staining for S-100 protein, vimentin, and neuron-specific enolase prove their different origin.\(^6\)\(^7\) Congenital epulis are called as Neumann’s tumour, first described in 1871.\(^6\) A pedunculated polyp also can arise from the cheek where cheek bite is the primary cause.

Both kinds of epulis are treated with excision. Laser is superior to scalpel excision as it can seal 0.5 cm vessels leaving no blood clots, and a precise resection by laser could result in smooth healing. There is no oedema around surgical site causing less pain after the excision. It is recommended to stop antiplatelets and anticoagulant medications before excision to prevent severe bleeding.\(^2\) Recurrence is very rarely reported if the excision is incomplete.

**Answers**

1. The diagnosis is epulis fissuratum.\(^2\)

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**Key Point**

Poor oral hygiene and ill-fitting dentures are the primary causes of epulis.
2. The causes of this pathology are poor oral hygiene and ill-fitting dentures.²

3. The histopathology picture is the polypoidal gingiva is lined by benign squamous mucosa with a pseudoepithelidematous hyperplasia submucosa which has various amounts of myxomatous tissue with moderate chronic inflammation. Benign ossification may be encountered sometimes called peripheral ossifying fibroma.¹

4. Epulis fissuratum is differentiated from congenital epulis by the following: congenital epulis is present during birth and demonstrate immunohistochemistry S-100, vimentin, and neuron-specific enolase.⁶,⁷

5. The differential diagnosis of epulis is gingival fibromatosis.³

6. The prognosis is very good and it is very rare to have recurrence.²

7. The treatment modality for epulis is excision using scalpel or CO₂ laser.²

**CLINICAL PEARLS**

The gingivo-labial sulcus epulis are uncommon and they can appear in birth or later in life.

Ill-fitting dentures or poor hygiene are the main cause.

Histopathologically they have stratified squamous epithelium with polypoidal mucos with hypertrophied submucosa with chronic inflammatory changes. Rarely ossification is seen.

Gingivo fibromatosis is a differential diagnosis.

Complete excision is the treatment of choice and recurrence is extremely rare.
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References


Key Point

*Excision with a scalpel or CO₂ laser is done.*