

**EPULIS FISSURATUM
CLINICAL APPEARANCE AND TREATMENT**

Dr G.Gavasova, Dr I.Budev

Medical University, Faculty of Dental Medicine

Oral Surgery Department

Head: Prof. Dr D. Atanasov, Ph.D, MD.

Summary

Continuous use of inappropriate partial and total prostheses leads to hyperplastic growth of alveolar mucosa. Such lesions are localized mainly in the frontal vestibular area of jaws yet pre-elected locations for it are absent. The clinic manifestation is easy to recognize but might be confused with spinocellular carcinoma. The authors were utilizing a screening test for that reason.

Treatment can be either conservative or surgical, giving preference to surgical excision with a subsequent auto-transplantation of mucous membrane from hard palate. Proper clinical cases are presented following a detailed review of the issue.

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Corresponding authours:

e-mail: dr_ggavazova@abv.bg

e-mail: dr_budev@abv.bg

Introduction

Let us present the clinical background and approach used for treatment of the often met in dental practice condition of mucous overgrowth in wearing uncomfortable prostheses.

Epulis fissuratum is an oral pathologic condition that appears in the mouth as an overgrowth of fibrous connective tissue. Also referred to less commonly as Inflammatory Fibrous Hyperplasia, Inflammatory Fibrous Dysplasia, Denture Granuloma, Denture epulis, Redundant tissue and Denture induced fibrous hyperplasia, it is associated with the edges of a denture that does not fit well.

Materials and Methods.

Five patients with maxillary and mandibular full prostheses that were very badly adapted, defective and needing replacement were evaluated. Prostheses were generally unstable due to the inadequate adaptation to the remaining ridge due to re-absorption and epulis formation.

After surgical and prosthetic planning, local anaesthesia was achieved through infiltration of anaesthetic solution in areas adjacent to the lesions to be removed.

The hyperplastic tissue was delimited by fixation with suture and removed with scalpel.

With 3 among the patients, immediately after tissue excision and removal, an iodoform-saturated gauze drain is inserted and the old denture is put back. With 2 patients, following the hyperplastic tissue removal, appropriate vestibuloplastics is carried out with a free gingival palatal graft. For all the 5 patients post-operative medication with non-steroidal anti-inflammatory drug (Enetra 2 × 100 mg) is prescribed. Patients got photographed before operation, right after it and post-operatively on the 7th day and 6 months thereafter. All patients were directed for making up new prostheses in one month past the operation.

Results

Our observations show that Epulis fissuratum appears as a single or multiple fold of tissue. Epulis fissuratum is a raised, red-pink, fissured mass. The lesions are found in the labial and/or buccal vestibules. Part of each lesion is located under the denture while the rest extends into the vestibule. The internal and external lesion parts are separated by a deep groove (fissure) in which the denture flange rests. The lesion is firm, fibrous, and pink; however, the bottom of the fissure is often red and ulcerated (fig.1). More commonly found in women, it can appear in either the mandible or maxilla but is more commonly found in the anterior portions of the mouth rather than in the posterior. Pain, bleeding and ulceration can develop.



Fig.1. Epulis fissuratum in the mandibule

When given a medical control examination to, the patients from the first group communicated discomfort and pain, subdued by the prescribed medicine in the course of 2 weeks. In patients with gingival transplantates no complaints at the accepting area side are reported yet some inconvenience on the granting area side (palate) was felt. Later control examinations (6 months after) showed significant prosthetic field reduction in the first group patients (see fig. 2), particularly demonstrable on the mandible, and adequately preserved prosthetic field in the patients operated using free gingival grafts (fig. 3).

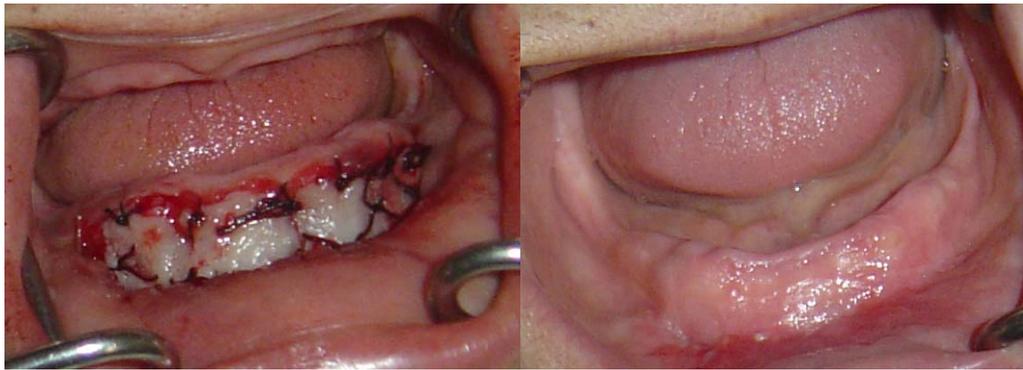


(a) After 7 days



(b) After 6 months

Fig. 2. Epulis fissuratum removed with scalpel excision.

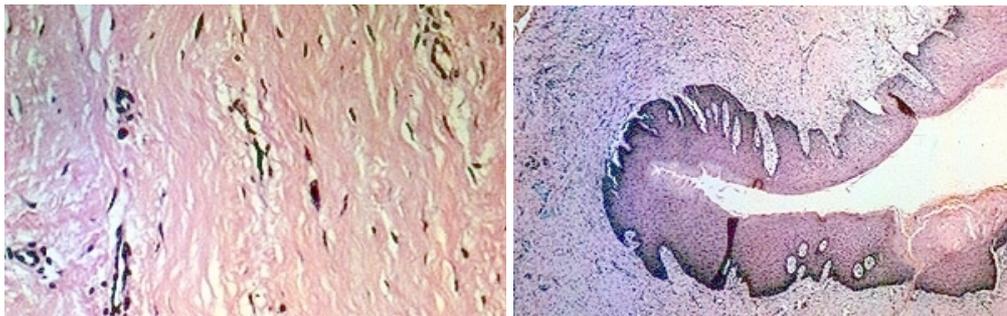


(a) After plastic surgery

(b) After 6 months

Fig. 3. Plastic surgery with free gingival graft

Diagnoses were made with microscopically examination. Epulis fissuratum is composed largely of dense fibrous connective tissue (scar tissue). The tissue lining the fissure part of the lesion is generally more vascular (more blood vessels) and the epithelium lining the fissure bottom is generally ulcerated with inflammation of the connective tissue underlying it (fig.4).



a.

b.

Fig.4.Epulis fissuratum:

(a) Note the dense collagenous connective tissue;

(b) Photomicrograph demonstrating fibrous hyperplasia with a prominent fold or fissure.

Discussion

Mucous overgrowth (epulis fissuratum) due to prolonged wearing of movable prosthetic dentures gives raise to diagnostic difficulties with a number of pathological processes in the oral cavity: verrucous carcinoma, squamous cell carcinoma (fig. 5), pyogenic granuloma and traumatic fibroma.



Fig.5. Squamous cell carcinoma

Various surgical techniques are assumed for the elimination of Epulis fissuratum – scalpel excision, electro-excision, removal by laser (1,2,3). Electro-excision and laser-aided removal of hyperplastic tissue yield a good outcome with respect to diminution of postoperative complications and fast tissue healing (4). Sound results with a view to create an adequate prosthetic field are achieved by means of plastic surgery (5). These conclusions of the authors are confirmed also by our survey. Thus, in our opinion, ordinary excision tends to create an unsatisfying prosthetic field while the effects on superior jaw (maxilla) are generally acceptable. Best and longer lasting results are produced by means of excision followed by plastic surgery with free gingival autogenous grafts.

Conclusion

Epulis fissuratum is a known condition of mucous overgrowth caused by chronic trauma when wearing movable poorly fit dental prostheses. To put a precise diagnosis it would be necessary to compare clinical with histological findings. Excision with a successive free gingival auto-transplantation is the treatment method to vote for.

References

1. Keng SB, Loh HS. The treatment of epulis fissuratum of the oral cavity by CO2 laser surgery. *J Clin Laser Med Surg*. 1992, 10(4):303-6.
2. Krolls SO, McGinnis JP Jr. Case presentation. Denture-induced fibrous hyperplasia (epulis fissuratum). *Miss Dent Assoc J*. 1993,49(3):18-9. .
3. W.Niccoli-Filho, A.C.c.Neves, L.a.,Penna et al., Removal of Epulis Fissuratum Associated to Vestibuloplasty with Carbon Dioxide Laser. *Lasers Med Sci*, 1999,14:203-206.
4. Thomas GA. Denture-induced fibrous inflammatory hyperplasia (epulis fissuratum): research aspects. *Aust Prosthodont J*. 1993;7:49-53.
5. Meister F Jr, Hickman TR, Davies EE. Surgical treatment of epulis fissuratum utilizing free gingival grafts: report of two cases. *J Wis Dent Assoc*. 1977 ,53(6):257-9.