Removal of a Peripheral Odontogenic Fibroma: A Practical Case from the Ordination for Dental Surgery and Implantology

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Summary
In the present case, a treatment option for the removal of odontogenic peripheral fibroma is presented. In an operative procedure the electrosurgical excision of an extensive finding as well as the modeling of the gingiva in the lower jaw regio 43-45 was carried out. This procedure ensured safe and complete removal of the fibroma and acceptable aesthetic reconstruction. A peripheral odontogenic fibroma is an absolute rarity and will be discussed in this article in the context of a case presentation.

Keywords: Peripheral odontogenic fibroma; Odontogenic tumor; Benign tumor

Anamnesis and Preoperative Course
A 37-year-old patient presented after referral from the family dentist with a request for assessment and treatment of persistent mucosal change in the lower jaw for over a year. The patient reported a significant increase in size within the last 3 months and had already noticed a protrusion of the extra oral soft tissues of the cheek right side (Figure 1). He had experienced a subjectively increasing foreign body sensation as well as problems with food intake and oral hygiene.

The intraoral dental status showed a conservative sufficient restaurated full dentition at the first presentation of the patient in our practice. In addition to discoloration caused by coffee, tea and red wine consumption and tartar in the area of the mandibular front, there were no other abnormalities of the hard tooth substances.

Clinically impressed a painless, 2 cm × 2 cm × 1 cm large, polypose-plump-elastic regional finding. This tumor in the right lower jaw was mounted in regio 42-46 and pedunculated to regio 43/44. Careful folding of the tumor showed teeth 43-45 intact (Figure 2).

To supplement the diagnostic an orthopantomogram was created.

In the upper and lower jaw, metal-rich shadows in the area of the molars of the left and right upper and lower jaw as well as in the right anterior region of the right upper jaw showed up in the sense of preserving fillings. The radiograph revealed no periapical or intraosseous lesions. In particular, the regio 42-46 was inconspicuous.

Histological Findings
The histological findings showed a bulging, slightly thickened layer of keratinizing squamous epithelium. Intra- and subepithelial, loose mixed-cell inflammatory infiltrates were found. Furthermore, a myxoid loosening, pseudocystic areas and changing lymphangiectasias could be detected. In a further treatment of the material, mucous swelling could be demonstrated as part of the Alcian Blue reaction. In addition, epithelial esters (Malassez's epithelium esters) were found.

Discussion and Conclusion
In summary of the clinical and radiographic findings, the working diagnosis of Epulis fibrogranulomatosa was made.
Figure 1: Presentation of the extra oral situs with protrusion of the cheek below the right corner of the mouth.

Figure 2: Illustration of the intraoral site (bleeding provoked by infiltration anesthesia).

Figure 3: Pre-op. made OPG.

Figure 4: Excised tumor region 43-44.

Figure 5: Situs regio 43/44 after electrosurgical excision and after modeling of the marginal gingiva.

Figure 6: Situs regio 43/44 after initial healing 10 days postoperatively.
Macroscopically, it presents itself as white/solid and shows only a very small tendency to infiltrate (Table 1).

If one summarizes the microscopic features of the odontogenic fibroma, the odontogenic fibroma consists mainly of connective tissue stroma. Odontogenic epithelial cell nests or strands may occur as in the case presented, but are not obligatory [1].

Other forms of expression may be the odontogenic fibroma of the giant-granulomatous type [6] and that of the granule type [8].

The therapy of the odontogenic fibroma aims a complete surgical removal of the tumor, which shows usually a good limitation of the lesion. Recurrences are rarely observed. A malignant degeneration tendency is not described [9].

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