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CONTENTS

Natural and Technical-technological Sciences

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International Journal of Recent Research in Arts and Sciences

ISSN: 1857-8128

Social Sciences and Humanities

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FIBROUS EPULIS - A CASE REPORT

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Abstract

Fibrous epulis is a benign tumour of the gingiva, commonly appearing in the area of the interdental papilla as a result of local chronic irritation, improper dental restorations, carious teeth, subgingival deposits, or a combination of all these factors. The aim of our research is to present a clinical case of fibrous epulis in the upper jaw. A 66-year-old male patient was admitted to the Oral Surgery Clinic due to the presence of a nodular formation localized in the anterior region of the left edentulous alveolar ridge in the upper jaw. Clinical examination revealed the presence of a tumoroid lesion measuring approximately 10 mm. The treatment is surgical excision of the lesion when it presents a functional or aesthetic problem for the patient or when there is a need for differential diagnosis in relation to gingival hyperplasia, papilloma or other benign or malignant neoplasms. Clinical findings and histopathological analysis confirm the diagnosis. The histopathological finding is the golden standard that concludes the initial clinical diagnosis and differentiate possible histopathological types of epulis.

Keywords: *fibrous epulis, gingiva, maxilla, surgical treatment, histopathological analysis*

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Introduction

Fibrous epulis is a type of inflammatory fibrous hyperplasia of the gingiva. Lesions is presented as compact fibrous nodule that affect oral function and aesthetic. It appears as a shiny red mass with a smooth or granular surface which, although benign, causes problems such as profuse bleeding, impaired function (mastication and speech), and aesthetics.[1] Fibrous epulis most commonly appears on the gingiva, ranging from 10 mm to 20 mm in size. Larger or rapidly growing lesions may be misdiagnosed as neoplastic.[2]

Aim The aim of this study is to present the fibrous epulis in the maxilla and its surgical treatment.

Case Presentation

A 66 years old male patient was admitted to the Oral Surgery Clinic due to the presence of a tumorous formation in the maxillary left anterior edentulous region. Anamnesis revealed that the gingival swelling had been present for a year and had increased in size over the past two months. The tissue enlargement caused difficulties in chewing and speaking, prompting the patient to seek medical help. He wore complete denture for about 10 years and he didn't wear them four weeks before he came to our Clinic. Examination revealed a nodule-well circumscribed, smooth, elastic, measuring 10mm by 15 mm on the left maxillary anterior gingiva with an ulcerated surface that bled upon the slightest touch. (Figure 1).

Figure 1 Tumorous lesion (preoperative intraoral finding)

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International Journal of Recent Research in Arts and Sciences

ISSN: 1857-8128

The gingiva of edentulous region was swollen and red, bleeding easily upon minor provocation (Figure 2). The anamnesis did not confirm the presence of any other acute or chronic illnesses.

Figure 2 Gingiva of edentulous region

The patient was referred for X-ray examination. The Orthopantomography image (Figure 3) revealed the absence of teeth or dental roots in the maxilla. Only teeth were present in the anterior mandible.

Figure 3 Radiographic 2 D finding

After obtaining the written consent to undergo the proposed therapeutic procedure, the patient was treated with surgical therapy. Biopsy was performed followed by surgical removal of the lesion using a surgical scalpel under local anaesthesia. The surgical procedure began with disinfection of the operative field with a 1% solution of Betadine (providon-iodine), and then the

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application of anaesthesia with mepivacaine (Scandonest3%) to anesthetize the operative field. Lesion was completely excised. (Figure 4)

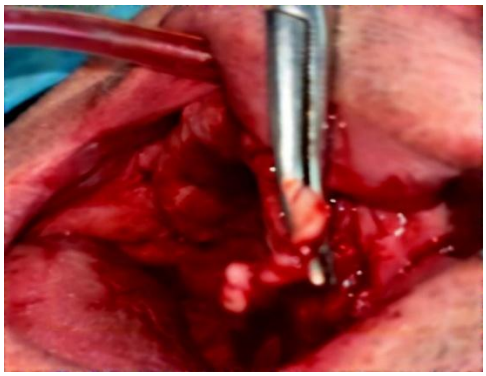

Figure 4 Excision of the gingival tissue

A tissue sample was put in 0.5% physiological solution (Figure 5), and sent for histopathological examination at the Institute of Pathology for histopathological verification.

Figure 5 Removed tumorous lesion

A zinc oxide dressing was applied to the treated gingiva and sutures were placed. (Figure 6).

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International Journal of Recent Research in Arts and Sciences

ISSN: 1857-8128

Figure 6 Operative area with applied ZnOOC surgical dressing

One gram of co-amoxicillin was used twice daily for one week as prophylaxis, and 90 mg etoricoxib once daily to control the pain. The patient was followed up the next day, and the sutures were removed one week after the procedure (Figure 7). The postoperative course was without difficulties, and the gingival epithelization was obtained after 7 days. The patient was advised to replace his old dentures with new after wound healing the affected tissue.

Figure 7 Operative area after removal of the surgical dressing

Results

Macroscopically lesions were white papillary proliferates with a diameter of 10 mm and 20 mm. Microscopically, histopathological analysis of sections shows papillomatous altered stratified squamous epithelium with nodular proliferation that includes proliferated collagen

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tissue with immature fibroblasts and focal lymphomonocytic inflammatory infiltrate with single mast cells. The finding corresponds to papillomatosis gingivae, epulis fibromatosis. (Figure 8)

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Амб.број:
Прим./Зат.: 29.10.2024 - 18.11.2024

Клиничка дијагноза: Susp. epulis fissuratum maxillae lat. sin.
Вид на испратен материјал: Surgical Biopsy
Материјал опис :

ХИСТОПАТОЛОШКИ НАОД

PAPILLOMATOSIS GINGIVAE
EPULIS FIBROMATOSIS
K06 - K06

Макроскопски наод :
Доставени се два беличести фрагменти од ткиво со димензии 2x1x0,5см и 1x0,6x0,5см. На површина се гледаат беличести папиларни пролиферати со пречник 0,4см и 0,5см. Промените се вклопени во 1 калап за ПХА.

Микроскопски наод:
Микроскопски на пресеците се гледа папиломатозно променет многуслоен плочест епител со нодуларна псевдоепителиоматозна пролиферација која опфаќа пролиферирано колагено ткиво со незрели фибробласти и фокален лимфомоноцитен воспалителен инфилтрат со единечни маст клетки. Зафатени се и попречно пресечени периферни делови од нервни снопчиња.
Наодот во доставениот оперативен материјал одговара за PAPILLOMATOSIS GINGIVAE, EPULIS FIBROMATOSIS.

Лекар:

Раководител
Проф. д р Костадинова-Куновска Славица
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Консултант

Патолог:
Проф. д-р Петрушевска Гордана
738310

Наодот е електронски авторизиран од Проф. д-р Петрушевска Гордана 738310
НАПОМЕНА : Подетални информации за акредитираните методи се наоѓаат во Прилогот кон сертификатот за акредитација бр. ЛТ-001, објавен на IARM, www.iarm.gov.mk
стр : 1/2

Figure 8 Histopathological findings from the Institute of Pathology

Discussion

Fibrous epulis, a type of inflammatory fibrous hyperplasia of the gingiva, is a relatively common tumorlike lesion. The possible origin is the periosteum and the periodontal ligament. [3] Epulis does not cause pain, but its presence leads to functional difficulties. Most local irritants in the oral cavity are physical and stimulate the submucosal connective tissue, periodontal ligament, or periosteum. Fibrous epulis occurs in response to local irritation from sharp edges (inadequate restorations, oversized porcelain crowns, decayed teeth, or subgingival calculus). This common type of epulis often originates from the interdental papillae. Factors that lead to its development are local irritations such as poor-quality dental restorations, dental plaque, and calculus.[4]

The estimated prevalence of fibrous epulis is 0.09%. It occurs at a wide range of ages and in women more often than men. Most lesions occur on the maxillary anterior interdental papilla.[5]

According to the 10 th International Classification of Disease published by the WHO, fibrous epulis is classifies as `other disorder of the gingival and edentulous ridge' (K06.8) [6]. One study showed that epulis commonly occurs in people aged 21 to 60, with women in the third to fourth decades of life being the dominant group affected by inflammatory gingival hyperplasia, and that the lateral region of the oral cavity is the most frequently involved. [7,8]

Clinically, fibrous epulis is an asymptomatic, exophytic, smooth-surfaced or focally ulcerated, mucosal-colored mass with a variable growth rate. Most lesions are 10 mm to 20 mm in diameter; those that are large or grow rapidly tend to be misdiagnosed as neoplastic. Histologically, fibrous epulis shows hyper-plastic epithelium that overlies fibrous connective tissue. The differential diagnosis includes pyogenic granuloma, peripheral giant cell granuloma, fibroma, peripheral odontogenic fibroma, fibrosarcoma, and squamous cell carcinoma. However, distinguishing fibrous epulis from the other conditions listed above may be difficult, and thus, histopathologic study is crucial. [9]

Conclusion

It is difficult to make a diagnosis only based on clinical examination. Therefore, a histopathological report is essential to confirm the definitive diagnosis of fibrous epulis. Treatment involves surgical excision of the lesion along with its base and elimination of predisposing factors to prevent recurrence of the lesion. Treatment of choice is surgical excision of the enlargement and removal of predisposing factors to avoid recurrence. Therefore, long-term follow-up is essential.

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