Case Report

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Fibrous Hyperplasia of the Palate: A Case Report

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ABSTRACT

Fibrous palate hyperplasia is not a common case in literature. The cause of this pathological change is not completely known. The development of hyperplasia may also be associated with a genetic mutation in the gingival soft tissue or gingival injury. We present a case of a 44-year-old patient who developed a swelling that manifested in the hard palate. After the excision, there were no histological elements in the material that indicated aggressive behavior of the formation. The clinical and histological diagnosis was fibrous hyperplasia, which is a rare condition in the palate since it's not a common site for injury.

Introduction

Fibrous hyperplasia or palate fibroma is a rare benign soft tissue tumor of the hard palate that occurs in about 1.2% of cases in the adult population [1,2]. In most cases, it appears as a unilateral, solid formation whose diameter rarely exceeds 1 cm. It is covered with a neat palatine mucosa [3]. Predisposing factors for the formation are genetic heredity, infections with viral agents, consumption of Betel nut, immunodeficiency as well as lack of protein in the diet [4]. In 3 - 6% of cases, the formation may malignantly alter to squamous cell carcinoma. This may be due to an abnormal response of fibrous tissue to chronic inflammatory irritation [5]. About 9% of these formations develop from the area of the interdental papilla. The formations are smaller in diameter, occurring more frequently in the female population, between the ages of twentyand thirty. They are usually found on a wide base and the surface color is pink to red [6]. Connective tissue proliferation may be associated with attachment gingival injury, gingival sulcus injury or the occurrence of a foreign body in the sulcus. The development of hyperplasia may also be associated with a genetic mutation in the gingival soft tissue [7].

Case Report

In our case, a 44-year-old patient developed a formation that manifested in the hard palate area. Fibromatous formation appeared 2 years before the examination. Initially, it grew as a small nodule that a year before began to develop into a bulky fibromatous formation formed of 2 lobes measuring 2cmx1.5cm. The mass was at the center of the hard palate between the rugae area. The formation was palpably hard and connected at a narrow base. It showed no signs of acute inflammation. The surface of the formation was smooth, and it was the same color as the surrounding mucosa. The formation was completely painless. In the health history, the patient did not report any trauma or irritation of the palate in the past two years. She denied any illnesses or allergies, as well as taking any medications. An excisional biopsy was taken, and the histopathological section was stained with an H&E showing fibrous connective tissue stroma consists of interlacing collagen bundles running in different directions, fibroblasts and blood vessels, covered by stratified squamous epithelium. There were no histological elements in the material that indicated aggressive behavior of the formation (Figures 1-4).

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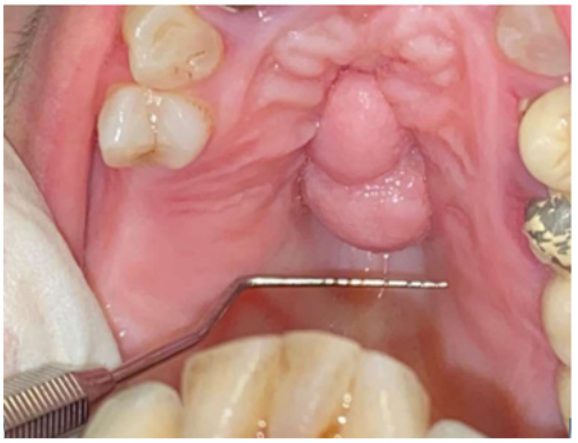

Figure 1: Showing fibrous hyperplasia in the palate.

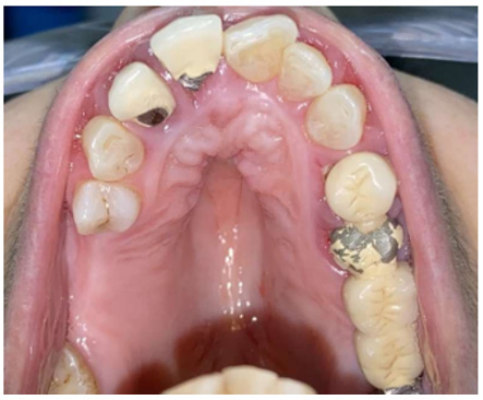

Figure 2: Showing immediately post excision of the lesion.

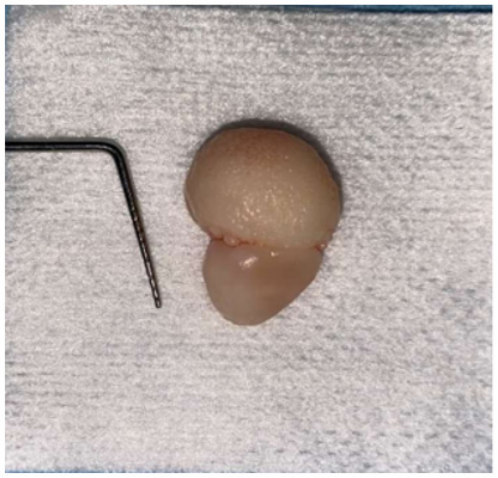

Figure 3: Showing the excisional biopsy.

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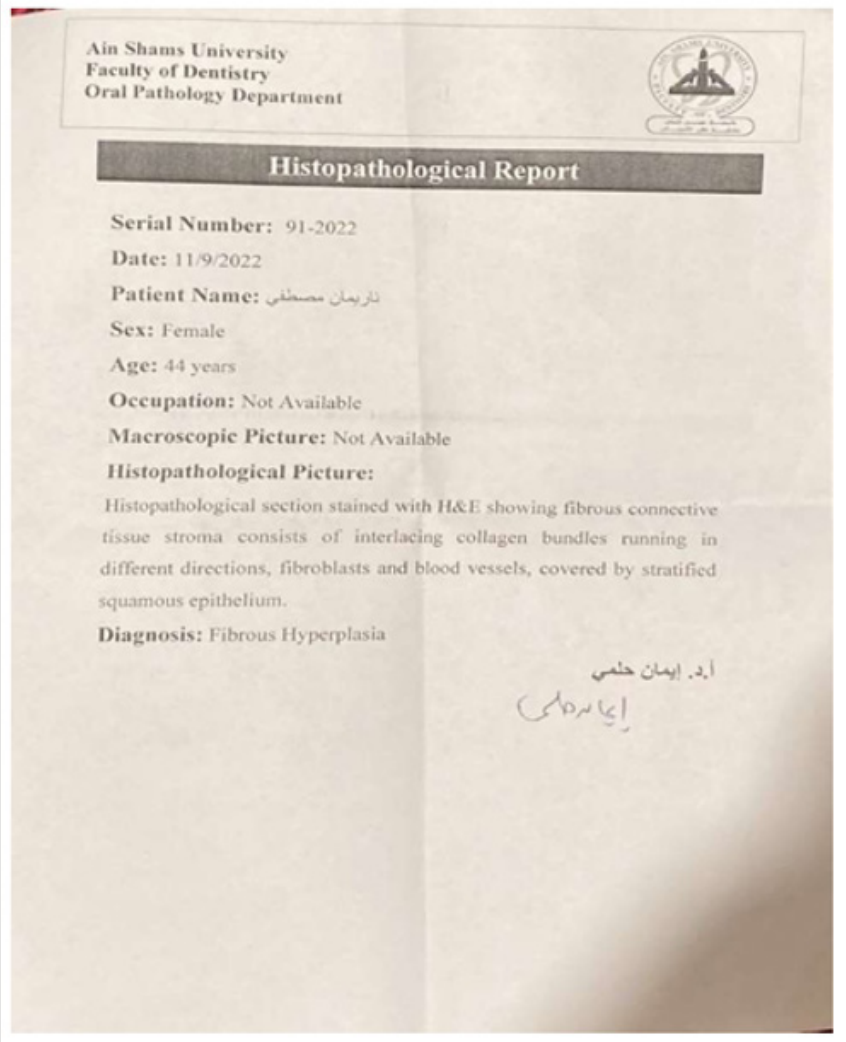

Ain Shams University
Faculty of Dentistry
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Histopathological Report

Serial Number: 91-2022
Date: 11/9/2022
Patient Name: نازيمان مصطفي
Sex: Female
Age: 44 years
Occupation: Not Available
Macroscopic Picture: Not Available
Histopathological Picture:
Histopathological section stained with H&E showing fibrous connective tissue stroma consists of interlacing collagen bundles running in different directions, fibroblasts and blood vessels, covered by stratified squamous epithelium.
Diagnosis: Fibrous Hyperplasia

أ.د. ايمان حلمي

Figure 4: Showing the biopsy report.

Discussion

The development of symmetrical palate hyperplasia is of unknown etiology and may be associated with various predisposing factors. There are various names in the literature for this formation such as fibrous epulis or calcifying fibroblastic granuloma [8]. Peripheral fibroids and oral fibromatosis >1 cm in diameter were linked by immunohistochemical analysis to CD34, alpha-smooth muscle actin (a- SMA), vimentin, Ki-67 (Mib1) and transforming growth factor-alpha (TGF-α). TGF-α is thought to be associated with fibroblast proliferation and enhanced fibroblastic activity [9]. It is clinically difficult to distinguish between a neoplasm and an uncontrolled reactive hyperplasia of fibrous tissue. Trauma and irritation are still considered to be the main predisposing factors for the occurrence of fibromatous formations in the oral cavity [10]. Eversole and Leider in their study stated that the recurrence was present in 28% of cases, after enucleation of intraosseous ossifying fibroma [11].

In the literature review from 1950 to 2017, different names for formations of similar shapes and appearances are encountered. Hiebert and Brooks used the name hard palate fibroma in 1950 and histopathological analysis of their sample found that the formation contained accumulations of fibroblasts and mature connective tissue cells [12]. For a similar formation, Beers used the term bilateral palate fibroma with almost identical finding of patohistological (PHD) analysis [13]. Evans, et al. [14] described fibrous formations on the palate as highly limited, solid, independent formations, which do not infiltrate the surrounding bone [14].

Conclusion

Palatal hyperplasia is a rare formation. We presented a case report of a 44-year-old woman with the mentioned change. The surface of the formation was smooth, without any ulcerations. Also, it was firm in the middle of the rugae are in the hard palate. Treatment

included an excision of the formation from healthy tissue. It is necessary to remove all irritating factors, as well as factors that can cause tissue trauma.

Conflict of Interest

The authors report no conflict of interest.

References

1. Raymond J Fonseca (2000) Oral and maxillofacial surgery. London: Elsevier Health Science, pp. 122-123.
2. Jaimes M, Muñante J, Olate S, Rodriguez Chessa Jg, De Albergaria Barbosa et al. (2008) Inflammatory fibrous hyperplasia treated with a modified vestibuloplasty: A case report. J Contemp Dent Pract 9(3): 135-141.
3. Mesquita Ra, Okuda E Jorge Wa, De Araújo Vc (2001) Collagenous fibroma (desmoplastic fibroblastoma) of the palate: A case report. Oral Surg Oral Med Oral Pathol Oral Radiol Endod 91(1): 80-84.
4. Isaac U Issac Js, Ahmed Khoso N (2008) Histopathologic features of oral submucous fibrosis: A study of 35 biopsy specimens. Oral Surg Oral Med Oral Pathol Oral Radiol Endod 106(4): 556-560.
5. Pedron Ig, Carnava Tg Utumi Er, Moreira La, Jorge Wa (2007) Hiperplasia fibrosa causada por protese: Remoção cirúrgica com laser Nd:YAP. Rev Clín Pesq Odontol 3(1): 51-56.
6. John RR, Kandasamy S, Achuthan N (2016) Unusually large-sized peripheral ossifying fibroma. Ann Maxillofac Surg 6(2): 300-303.
7. Kumar SK, Ram S, Jorgensen MG, Shuler CF, Sedghizadeh PP (2006) Multicentric peripheral ossifying fibroma. J Oral Sci 48(4): 239-243.
8. Lee KW (1968) The fibrous epulis and related lesions. Periodontics 6(6): 277-292.
9. Rotaru H, Choi JY, Hong SP, Lee YC, Yun KL, et al. (2003) Transforming growth factor-a and oral fibroma: Immunohistochemical and in situ hybridization study. J Oral Maxillofac Surg 61(12): 1449-1454.
10. In: Neville BR, Damm DD, Allen CM, Bouquot JE (Eds.)., (2002) Oral & maxillofacial pathology, (2nd Edn.)., Philadelphia WB Saunders, pp. 438-439.
11. Eversole LR, Leider AS, Nelson K (1985) Ossifying fibroma: A clinicopathologic study of sixty-four cases. Oral Surg Oral Med Oral Pathol 60(5): 505-511.
12. Hiebert AE, Brooks HW (1950) Fibroma of the palate. Plast Reconstr Surg (1946) 5(6): 532-535.
13. Beers MD (1953) Bilateral fibroma of the palate: Report of case. J Oral Surg Chic 11(4): 330-332.
14. Evans HL (1995) Desmoplastic fibroblastoma. A report of seven cases. Am J Surg Pathol 19(9): 1077-1081.

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