

Massive Fibroepithelial Polyp of the Oral Mucosa: A Rare Case Report

Sghaier Jihed^{1*}, Abdelkader Smida¹, Afef Slim¹, Maroua Garma¹, Chokri Abdellatif¹, Jamil Selmi¹

¹Department of Medicine and Oral Surgery, University Dental Clinic, Monastir, Tunisia

DOI: [10.36347/sasjs.2023.v09i09.015](https://doi.org/10.36347/sasjs.2023.v09i09.015)

| Received: 08.08.2023 | Accepted: 14.09.2023 | Published: 29.09.2023

*Corresponding author: Sghaier Jihed

Department of Medicine and Oral Surgery, University Dental Clinic, Monastir, Tunisia

Abstract

Case Report

Fibroepithelial polyps (FEPs) are common benign tumors in the mouth. They normally develop gradually in certain locations and are caused by local irritation or trauma. Their dimensions usually do not exceed 5 millimeters. We report a rare case of a giant fibroepithelial polyp in a 46-year-old man on the internal surface of the cheek. He was referred to our Oral Medicine and Oral Surgery Department on account of a massive lesion on the right buccal mucosa. This patient underwent an excisional biopsy under local anesthesia. Histological examination confirmed the diagnosis of fibroepithelial polyp. Fibroepithelial polyps are a very common occurrence. But lesions reaching a huge size are extremely rare. Physicians should properly diagnose and manage these lesions effectively to prevent recurrences and malignant transformation.

Keywords: Polyps, fibroepithelial, oral, mucosa, pathology.

Copyright © 2023 The Author(s): This is an open-access article distributed under the terms of the Creative Commons Attribution 4.0 International License (CC BY-NC 4.0) which permits unrestricted use, distribution, and reproduction in any medium for non-commercial use provided the original author and source are credited.

INTRODUCTION

The oral cavity is a dynamic area that is continually exposed to external and internal stimuli, resulting in a plethora of disorders ranging from developmental to reactive and neoplastic [1]. Fibroepithelial polyps (FPs) are the most common oral cavity epithelial benign lesions with a very low risk of malignancy [2].

Cooke coined the term "polyp" (fibroepithelial polyp) to encompass any pedunculated swelling originating from a mucosal surface. Where the highest concentration of lesions was observed on the mucosa along the line of occlusion [3]. The present report describes the rare case of a giant fibroepithelial polyp on the buccal mucosa in a 46-year-old man on the internal surface of the cheek.

CASE PRESENTATION

A 46-year-old man reported to the Department of Oral Medicine and Oral Surgery at the University Dental Clinic of Monastir-Tunisia with a complaint of asymptomatic nodular growth in the right cheek mucosa from the past 2 years. The patient's history revealed a habit of cheek biting during mastication.

The lesion initially manifested as a small nodule, gradually expanding in size as time progressed.

Upon oral examination, smooth, well-defined swelling that was oval and pedunculated.

The color of the lesion resembled normal mucosa. The swelling was located on the right buccal mucosa along the line of occlusion and the swelling was up to 6 cm in diameter.

On palpation, the growth had a soft consistency. The patient had poor oral hygiene with a generalized periodontal condition. Based on our clinical assessment, we concluded that the fibroepithelial polyp was a reactive response to trauma. (Fig. 1).



Figure 1: Pre-operative intraoral View.

An excisional biopsy was performed under local anesthesia. The wound was sutured (Fig. 2). Macroscopically, the mass exhibited a fibrous consistency. (Fig. 3). The procedure was uneventful and histopathology revealed a polyp lined by regular squamous epithelium. Its axis is composed of fibrous

connective tissue closely resembling the appearance of the chorion. There are ascending striated muscle cells present at the base of this polyp. There was no atypia or malignancy seen. As a result, histological investigations proved the diagnosis of a fibro-epithelial polyp (Fig. 4).



Figure 2: The post-surgical wound was sutured



Figure 3: Excised mass.

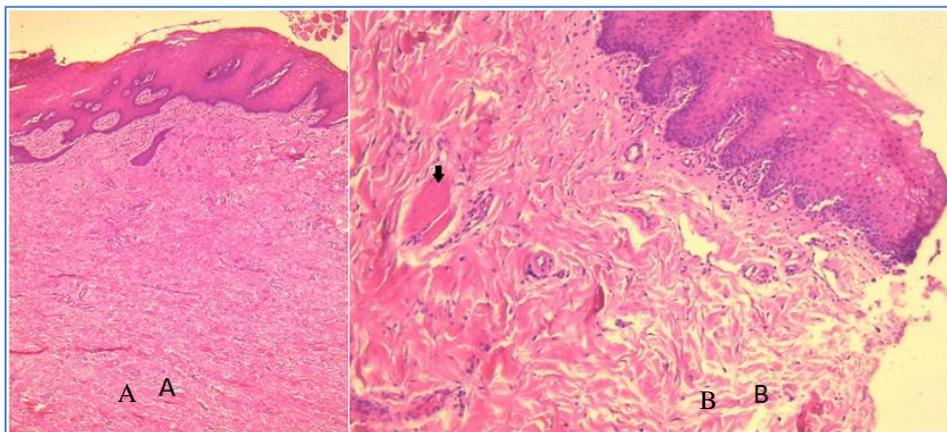


Figure 4: Histopathological Image. A: Lower power image of polypoid mass with fibrous axis lined by hyperplastic squamous epithelium (HEx40). B: presence at the base of the lesion-striated muscle cells (black arrow).

During subsequent follow-up examinations, there were no indications of recurrence or any remaining tumor tissue. (Fig. 5).



Figure 5: Postoperative evaluation at 15 days.

DISCUSSION

Fibrous growths of the oral soft tissues are fairly common and include a diverse group of reactive and neoplastic conditions [3]. The enlargement of oral cavity tissues frequently poses a diagnostic challenge due to the wide range of pathological processes that can give rise to such lesions. [4].

Fibroepithelial polyp (FEP) is a frequent sub-mucosal reaction to trauma caused by teeth or dental prostheses. Its initial documentation dates back to 1846 when it was reported as a fibrous polyp and polypus [12].

These lesions are prevalent in various age groups. The peak was in the 31 to 40 years age group (10.54%) followed by the 51 to 60 years age group (7.82%). It is more common in females (29%) compared with males (15%) [9]. The etiology of these polyps is not clear. It may be caused by chronic irritation, infection, hormonal imbalance, allergic factors, minor trauma, or some developmental defects.

FPs are small round knob-like outgrowths that can form anywhere on mucosa but are most common on the tongue, lips, and cheek along the occlusal line. Solitary occurrences are typically characteristic of these polyps, and reports of multiple or bilateral polyps are exceedingly uncommon. These polyps clinically appear as firm, pink, painless, sessile, or pedunculated, polypoid swelling with varying sizes which range from a few millimeters [5]. The growth potential of FPs does not exceed 10 to 20 mm in diameter [10]. Histopathologically, it presents as hyperplastic stratified squamous epithelium in association with loose to dense

collagen (type I/III collagen), and chronic inflammatory cell infiltrate in the underlying connective tissue [6].

The clinical presentations of oral fibroma are not unique and the differentiation of these lesions should be made from giant cell fibroma, neurofibroma, peripheral ossifying fibroma, pyogenic granuloma, or peripheral giant cell granuloma. Lipoma can also be considered in the differential diagnosis but it is rarely seen in the oral cavity which has a pale-yellow color soft and has a slip feel on palpation.

Excision stands as one of the commonly performed treatment procedures, aiming for the immediate, bloodless, painless removal of the lesion, and ensuring a prompt recovery following the treatment. Scalpel is often used because of its perfection, minimal harm to cells, and convenience of use, conversely, better-quality of hemostasis will not be offered by a scalpel, which is crucial in the oral cavity as it is an incredibly perfused region [7]. It is also important to manage the source of the irritation, if the lesion is treated without removing the irritation source, the lesion will recur [11]. Other treatment modalities include cryosurgery, electrocautery, intralesional corticosteroids, intralesional ethanol, and sclerotherapy [8].

FEP does not hold a risk for malignancy [14]. Recurrences of this lesion are uncommon or rare. However, Cooke in his review reported recurrence in 3 cases out of 78 biopsy specimens [15]. T.F.A. Less analyzed the removal of 682 FEPs over a seven-year period and report sensitivities of 92.4% for a “confirmed clinical suspicion of an FEP” and 99.7% for a “confirmed clinical suspicion of a benign diagnosis”. The incidence of a non-benign disease was 0.3% [17].

It is important to submit the excised tissue for microscopic examination because other benign or malignant tumors can also mimic the clinical appearance of a fibroma [16]. Primary care dentists who have completed foundation training should be able to diagnose and monitor FEPs accurately and refer only if there are signs of risk factors of concern [18].

CONCLUSION

The oral cavity serves as an ideal environment for the development of diverse reactive soft tissue overgrowths. However, their similar clinical presentations often create a diagnostic challenge. They possess a functional, esthetically unpleasing appearance to the patient, difficulty in maintaining oral hygiene, and practical difficulty for a dentist in case of fabrication of any prosthetic appliance. Thus, successful management and proper excision of the lesion to prevent its recurrence is mandatory for the dentist.

ACKNOWLEDGMENTS: The authors are grateful to the patients for their collaboration.

REFERENCES

- Mishra, A., & Pandey, R. K. (2016). Fibro-epithelial polyps in children: a report of two cases with a literature review. *Intractable & rare diseases research*, 5(2), 129-132. <https://doi.org/10.5582/irdr.2016.01015>
- Eads, T. J., Chuang, T. Y., Fabré, V. C., Farmer, E. R., & Hood, A. F. (1996). The utility of submitting fibroepithelial polyps for histological examination. *Archives of dermatology*, 132(12), 1459-1462. doi:10.1001/archderm.1996.03890360049009
- prasanna, J., & Sehrawat, S. (2011). Fibroepithelial hyperplasia: Rare, selflimiting condition-Two case reports. *Journal of Advanced Oral Research*, 3(3), 63-70. doi:10.1177/2229411220110324
- Alam, M. N., Chandrasekaran, S. C., & Valiathan, M. (2010). Fibroma of the Gingiva: A Case Report of 20 Year Long Standing Lesion. *International Journal of Contemporary Dentistry*, 1(3).
- Lee, K. W. (1968). The fibrous epulis and related lesions. Granuloma pyogenicum, 'Pregnancy tumour', fibro-epithelial polyp and calcifying fibroblastic granuloma. A clinico-pathological study. *Periodontics*, 6(6), 277-292.
- Kolte, A. P., Kolte, R. A., & Shrirao, T. S. (2010). Focal fibrous overgrowths: A case series and review of literature. *Contemporary clinical dentistry*, 1(4), 271. doi:10.4103/0976-237x.76400
- Koppolu, P., Mishra, A., Kalakonda, B., Swapna, L. M., Bagalkoikar, A., & Macha, D. (2014). Fibroepithelial polyp excision with laser and scalpel: A comparative evaluation. *Int J Curr Microbiol App Sci*, 3(8), 1057-1062.
- Mishra, A., & Pandey, R. K. (2016). Fibro-epithelial polyps in children: a report of two cases with a literature review. *Intractable & rare diseases research*, 5(2), 129-132. doi:10.5582/irdr.2016.01015
- Bataineh, A., & Al-Dwairi, Z. N. (2005). A survey of localized lesions of oral tissues: a clinicopathological study. *J Contemp Dent Pract*, 6(3), 30-9. doi:10.5005/jcdp-6-3-30
- Arya, S., Singhal, P., Vengal, M., Patil, N., & Bhateja, S. (2015). Fibro-epithelial Polyp-Report of Two Cases with. *IJSS*, 1(9), 10.
- Jain, M. A. Y. A. N. K., Singh, A. V., Leekha, S. W. A. T. I., & Prashar, S. A. H. I. L. (2017). Fibroepithelial hyperplasia: a case report. *International healthcare research journal*, 1(6), 16-9. doi:10.26440/ihrj/01_06/110
- Patil, V. S., & Rramanojam, S. (2018). Importance of histopathology in diagnosis of large fibroepithelial polyp in oral cavity: A case report. *Ann Clin Case Rep*. 2018; 3, 1489.
- Laller, S., Saini, R. S., Malik, M., Jain, R., & Bahadurgarh, H. (2014). Case report an appraisal of oral mucous extravasation cyst case with mini review. *Journal of Advanced Medical and Dental Sciences Research*, 2(2).
- Yeatts, D., & Burns, J. C. (1991). Common oral mucosal lesions in adults. *Am Fam Physician*, 44(6), 2043-50.
- Layfield, L. L., Shopper, T. P., & Weir, J. C. (1995). A diagnostic survey of biopsied gingival lesions. *Journal of Dental Hygiene: JDH*, 69(4), 175-179.
- Halim, D. S., Pohchi, A., & Pang, E. E. (2010). The prevalence of fibroma in oral mucosa among patient attending USM dental clinic year 2006-2010. *The Indonesian Journal of Dental Research*, 1(1), 61-66. doi:10.22146/theindjdentres.9991
- Lees, T. F. A., Bogdashich, L., & Godden, D. (2021). Conserving resources in the diagnosis of intraoral fibroepithelial polyps. *British Journal of Oral and Maxillofacial Surgery*, 59(1), e9-e12. doi:10.1016/j.bjoms.2020.05.025
- Retrieved from (2018). <https://www.copdend.org/postgraduate-training/dental-foundation-training/872-2/>