



Importance of Histopathology in Diagnosis of Large Fibroepithelial Polyp in Oral Cavity: A Case Report

Viren Shirish Patil* and Shandilya Rramanojam

Department of Oral and Maxillofacial Surgery, Bharati Vidyapeeth Dental College and Hospital, India

Abstract

A fibroepithelial polyp is the epithelial benign tumor of the oral cavity and which is presented clinically as a tiny size but may be seen as a large mass in some cases which can create a dilemma to operating surgeon to diagnose and treat such lesion. So it is very crucial for a surgeon or a clinician to differentiate and correctly diagnose a lesion to decide appropriate treatment plan for the lesion. In this article we have put forth the importance of the histopathological diagnosis of a lesion having rare, unusual and abiding features but which is one of the most common lesions of the oral cavity i.e. fibroepithelial polyp which states that only size and characteristics of the lesion doesn't matter, the histopathology and surgical intervention go hand in hand which is ultimately favorable to an as well as the patient.

Keywords: Fibroma; Fibroepithelial polyps; Tumor; Histopathology

Introduction

Localized fibrous tissue overgrowths are very common in the oral mucosa. As far as the nature of these lesions goes, most pathologists believe that both hyperplasia and neoplasms can occur. However, it is very difficult to differentiate between the two and decide whether a benign neoplasm exists or not. A reactive or irritational fibroma usually has an etiology, that is, a source of irritation, while benign fibrous neoplasms do not have that. Also, the character of these lesions tells a story [1].

The extremely low frequency of occurrence of true fibromas (benign neoplasms) was highlighted by Barker et al. in 1967 when they reported two true fibromas among 171 specimens of localized fibrous growths. The term irritation fibroma is used to describe presumably hamartomatous or hyperplastic processes, not neoplasia [2,3]. Reactive lesion in oral cavity frequently existent with very similar clinical features those can often create a difficult diagnostic situation for an operating surgeon. These lesions because of large size pose a problem to the patient while brushing, chewing etc. Most of the lesion has to be distinguished from other similar neoplastic lesions. As a result, after the surgical intervention, histopathological examination is mandatory to rule out any other pathology [4]. Our case reports reveals the need of histopathological diagnosis to rule out such oral lesions which finally will aid in treating the patient in a right way.

Case Presentation

A 45 year old female patient approached to us with a chief complaint of gradually growing lump in the left maxillary posterior teeth region which was encompassing till the midline of the palate from the buccal aspect of left maxillary first molar. Patient had a previous history of the same lesion 20 years back which was excised surgically. The lesion was tiny solitary initially which slowly turned out to be large sized lump.

Thorough intra examination of the patient revealed a firm, solitary, painless, irregular, well defined, exophytic, pedunculated and non-pulsatile, growth involving the left maxillary posterior region between left maxillary second premolar extending to left maxillary third molar laterally and till the midline of the palate mesially with grossly carious left maxillary first molar. The growth was smooth and shiny in appearance. The color of the lesion was reddish pink measuring about 40x30x10 mm in dimensions. Patient had a poor oral hygiene with a generalized periodontal condition (Figure 1). Radiographic investigation (OPG) was done and the interpretation revealed grossly carious left maxillary first molar with radiolucency at the apex of the 26 tooth. Treatment plan was decided. Results of the blood investigations were within normal limits.

The lesion was visualized and was excised in toto and extraction of left maxillary first, second

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*Correspondence:

Viren Shirish Patil, E-1, Blue bell, new tarabai park, Kolhapur, Maharashtra, 416003, India, Tel: 919763999669;

E-mail: patilviren@yahoo.co.in

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Figure 1: Clinical examination revealing a huge exophytic lesion.



Figure 2: Excised specimen in toto.

and third molar was done under local anaesthesia. Irrigation with normal saline and betadine was done. Gauze pack was kept is the operated site.

The excised lesion measuring 40x30x10 mm was irregular, well encapsulated mass, smooth, soft to firm in consistency and in cross section thick fibrous cut surface with vascular congestion was seen. The specimen was stored in formalin bulb and was sent to histopathology laboratory. Post-operative antibiotics and analgesics were prescribed the patient. Post-op instructions to the patient were given (Figure 2).

To evaluate the progression and the exact nature of the pathology as the lesion was comparatively unusual and large; the excised mass was then sent for the histopathology.

Histopathological Interpretation

Microscopic evaluation with hematoxylin and eosin stain revealed an unusual, benign mass, the exophytic growth shows a squamous lining of stratified squamous epithelium presenting with hyperkeratosis, acanthosis and surface ulceration. The stroma consists of fibromyxoid and collagenous tissue showing marked, mixed, inflammatory infiltrate with increased vascularity. There was no atypia or malignancy seen. The histopathological diagnosis was benign, exophytic, fibroepithelial polyp with marked inflammation (Figure 3). No recurrence was reported on follow-up after 3 months.

Discussion

Benign tumors of fibrous connective tissue are commonly seen in the oral cavity, and the great majority represents inflammatory rather than neoplastic conditions [5]. Fibroepithelial polyp is a common sub-mucosal response to trauma from teeth or dental prostheses

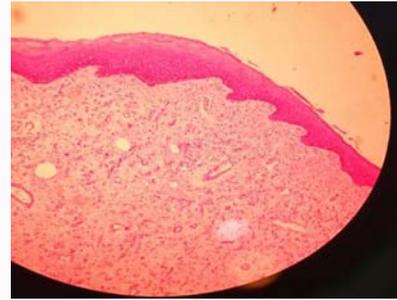


Figure 3: Photomicrograph revealing fibroepithelial polyp features such as acanthosis, hyperkeratosis and dense collagen fibers.

and was first reported in 1846 as fibrous polyp and polypus. Fibroma occurs as a result of a chronic repair process that includes granulation tissue and scar formation resulting in a fibrous submucosal mass. The traumatic irritants include calculi, overhanging margins, restorations, foreign bodies, chronic biting, margins of caries and sharp spicules of bones and over extended borders of appliances. They rarely occur before fourth decade and show no preference for either sex [6]. The problem of differentiating between localized fibrous overgrowths that are hyperplasia and those that are benign neoplasms occurs in other tissues as well as in the oral cavity and, as in the case of the oral growths; there is deviation in terminology and classification. Clearly, then, the general surgeon must regard the diagnosis of fibroma with at least some suspicion, and must know precisely what the particular pathologist who has dealt with a given lesion means by this diagnosis of these common lesions has shown beyond any doubt that the overwhelming majority pursue an entirely benign course, and that where a competent histological diagnosis of benignity is made in the beginning, there need be no fear of recurrences later, due to malignant propensities that have not been obvious on histological examination [2].

Diagnosis and descriptions of lesions conform to the definitions used by Axell with the following terminology differences: irritation fibroma is used instead of Axell's fibroepithelial polyp, and epulis fissuratum is used to replace his less specific denture hyperplasia [3].

The fibroma occurrence corresponds with intraoral areas that are prone to trauma such as the tongue, buccal mucosa, and labial mucosa. Clinically, they appear as broad-based lesions, lighter in color than the surrounding normal tissue, with the surface often appearing white because of hyperkeratosis or with surface ulceration caused by secondary trauma. The growth potential of fibroma does not exceed 10-20 mm in diameter [6], wherein our case report reveals a huge lesion measuring about 40 mm which is a less notable finding.

Conclusion

So, we can conclude that in such huge oral lesions it is very vital to have a histopathological investigation done and correlate the histopathology diagnosis with the clinical diagnosis of the lesion which will finally help to aid in correct treatment plan.

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