

## CASE REPORT

DOI: 10.15517/IJDS.2022.50713

Received:  
12-I-2022

Oral Fibrous Hyperplasia: Report of Two Cases

Accepted:  
7-III-2022

Hiperplasia Fibrosa Oral: Reporte de Dos Casos

Published Online:  
5-IV-2022

Elma N. Permata-Dewi BDS<sup>1</sup>; Sarah R. Salsabila BDS<sup>2</sup>; Ardhian R. Kristiasih DDS<sup>3</sup>;  
Rizqan Maulana DDS<sup>4</sup>; Cahya Y. Hasan, DDS<sup>5</sup>; Hendri Susanto PhD<sup>6</sup>

1. Dental Study Program, Faculty of Dentistry, Universitas Gadjah Mada, Yogyakarta, Indonesia. <https://orcid.org/0000-0001-6492-0998>
2. Dental Study Program, Faculty of Dentistry, Universitas Gadjah Mada, Yogyakarta, Indonesia. <https://orcid.org/0000-0002-8411-2530>
3. Department of Oral and Maxillofacial Surgery, Faculty of Dentistry, Universitas Gadjah Mada, Yogyakarta, Indonesia. <https://orcid.org/0000-0003-4004-5046>
4. Department of Oral and Maxillofacial Surgery, Faculty of Dentistry, Universitas Gadjah Mada, Yogyakarta, Indonesia. <https://orcid.org/0000-0001-9439-6517>
5. Department of Oral and Maxillofacial Surgery, Faculty of Dentistry, Universitas Gadjah Mada, Yogyakarta, Indonesia. <https://orcid.org/0000-0002-5132-0261>
6. Department of Oral Medicine, Faculty of Dentistry, Universitas Gadjah Mada, Yogyakarta, Indonesia. <https://orcid.org/0000-0001-5642-5014>

Correspondence to: Hendri Susanto - [drghendri@ugm.ac.id](mailto:drghendri@ugm.ac.id)

**ABSTRACT:** Oral fibroma or Fibrous hyperplasia is a benign tumor in oral cavity may be found at any sites of oral mucosa with clinical feature as a single mass, soft, sessile or pedunculated, smooth surface, painless with or without inflammation. Due to clinical presentation variation, the histopathology examination may be necessary to obtain definitive diagnosis especially in unidentified causes. This case report aimed to present oral fibrous hyperplasia cases in oral cavity with unknown causes. A 50-year-old and 48-year old women complained single mass on anterior palate and left buccal mucosa, pedunculated, slow progress with soft constancy with history of unidentified causes. The excision was taken for the treatment and histopathology examination with clinical diagnosed by fibroma. The wound completely closed after several weeks after treatment. The conclusion of these two cases report showed that the diagnosis of a single mass in oral cavity with unidentified causes need histopathology examination to have final diagnosis.

**KEYWORDS:** Reactive hyperplasia; Traumatic fibroma; Oral mucosa; Biopsy.

RESUMEN: El fibroma bucal o hiperplasia fibrosa es un tumor benigno de la cavidad bucal que se puede encontrar en cualquier sitio de la mucosa oral con la característica clínica de ser una masa única, blanda, sésil o pedunculada, de superficie lisa, indolora con o sin inflamación. Debido a la variación de la presentación clínica, el examen histopatológico puede ser necesario para obtener un diagnóstico definitivo, especialmente en causas no identificadas. Este reporte de caso tuvo como objetivo presentar casos de hiperplasia fibrosa oral en cavidad oral con causas desconocidas. La conclusión de este informe de dos casos demostró que el diagnóstico de una masa única en la cavidad oral con causas no identificadas necesita un examen histopatológico para establecer un diagnóstico final.

PALABRAS CLAVE: Hiperplasia reactiva; Fibroma traumático; Mucosa oral; Biopsia.

## INTRODUCTION

Oral swelling is one of the oral lesions which may be found in dental practice. The clinical feature of oral swelling may be confusing since the variety characteristic of the lesion may be present in oral cavity. In addition the location of the swelling may be located in all site of oral mucosa. Solitary oral swelling is the common lesion found in oral mucosa. The most common solitary oral swelling is benign type lesion. The presentation of the benign oral swelling may be sessile or pedunculated, nodular shape, smooth surface, with or without erythematous and asymptomatic (1,2).

The etiology of benign single oral swelling may be reactive type and may found in both children and adult. The origin of swelling is the fibrous tissue accompanied with inflammation due to chronic irritation (2-4). The most site of reactive type oral swelling is gingiva but it may also found in other sites of oral cavity. A number terms for single fibrous oral swelling are polyps or epulis, although clinical presentation may refer to fibroma (2). Hence, it is important to have several differential diagnosis for the oral swelling lesions. The history may be helpful for clinician in order to make decision for diagnosis and treatment planning. However, the difficulty may arise when the clinical

presentation of the oral swelling is uncommon with history of unknown causes. Hence, Histopathology examination is indicated to establish diagnosis (1,2).

Oral fibrous hyperplasia is one of the benign oral swelling characterized by soft tissue enlargement which may be found in oral mucosal with nodular, pedunculated, smooth surface, with or without inflammation and asymptomatic (2,5). Oral fibrous hyperplasia which many authors also prefer the term oral fibroepithelial polyps, peripheral fibroma, is a type of fibroma (6). The cases of fibroma or oral fibrous hyperplasia have been reported, most of cases found in adult, located on buccal mucosa (7,8), anterior mandible (9), on maxillary and mandible anterior teeth (10), in palate (11-13) and tonsils (14), and in retromolar trigonome (15). Two case reports of oral swelling diagnosed by fibroepithelial polyps of maxillary anterior teeth and left mucosa buccal in children (16). The case report was aimed to report two cases of the single oral swelling which characterized with asymptomatic nodular pedunculated, smooth surface and located in palate and buccal mucosa with unidentified causes in adult patients. The clinical presentation as oral fibroma/fibrous hyperplasia was the final diagnosis after histopathological examination confirmation.

## CASE REPORT

## CASE 1

A 50-year-old female visited to Prof. Soedomo Dental Hospital, Universitas Gadjah Mada. The patient complained a mass on the palate. This mass began to appear since 10 years ago with unrecognized causes. The patient felt that the mass was getting bigger due to frequent contacted with the tongue during chewing. There was not pain and bleeding from the lesion.

She had allergies to seafood, dust, and drugs such as Mefenamic acid, Paracetamol, Diclofenac Potassium, and Ibuprofen. She had a history of being hospitalized for surgical removal of Myoma in the uterus. She was taking amlodipine 10mg for her hypertension taken once a day for the last one year. Her father's family medical history had a history of Diabetes mellitus, while her mother had a history of Hypertension. Her dental history related to her complaint was insignificant.

There was no abnormalities on extra oral only clicking on the right side Temporo Mandibular Joint (TMJ).

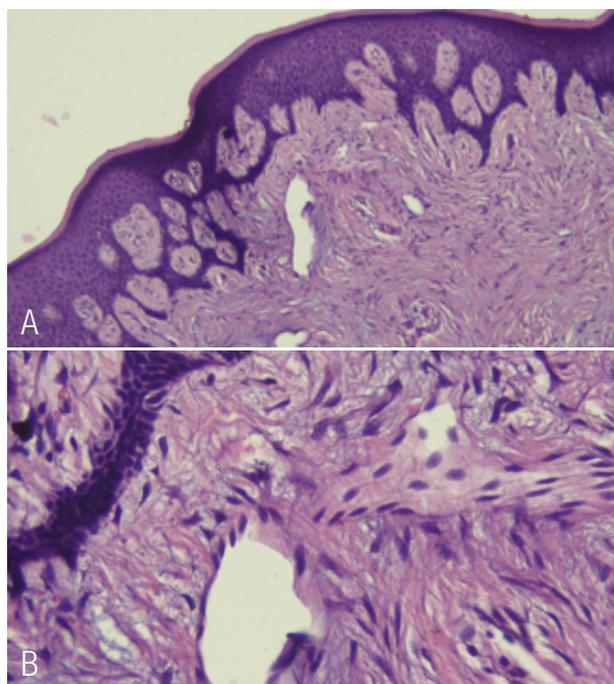
Intraoral clinical examination showed a tumor on the anterior hard palate with a diameter of  $\pm 1$ cm, round, single, well-defined, soft in consistency, slightly rough surface, painless (Figure 1). We diagnosed fibroma with a differential diagnosis of salivary gland tumor, squamous papilloma. We referred to oral surgery clinic for excision and for histopathology examination.

At the next visit, 3 weeks later, a nodule excision procedure was performed on the palate. The results of the histopathological examination was a diagnosis of fibrous hyperplasia. On a microscopic examination (Figure 2). It appeared that the connective tissue covered by a monomorphous complex squamous epithelium, the stroma

is a fibrovascular consisting of collagen bundles with dilated and proliferated blood vessels. It was found adipose tissue and the lymphocytes. There was no sign of malignancy. In the second week after the excision, the wound of the surgery was completely closed.



**Figure 1.** Tumor on the anterior hard palate, a diameter of  $\pm 1$ cm, round, single, well-defined, soft in consistency, painless.



**Figure 2.** A). Fibrous tissue covered by a monomorphous complex squamous epithelium (H&E,40x). B). The stroma is a fibrovascular consisting of collagen bundles with dilated and proliferated blood vessels (H&E,100x).

## CASE 2

A 48-year-old female visited to Prof. Soedomo Dental Hospital, Universitas Gadjah Mada. The patient complained a mass on the left buccal mucosa. This mass began to appear about 1 year ago. The patient felt that the mass was getting bigger due frequent biting during chewing. There was not pain and bleeding from the lesions.

She had no allergies to food and drugs. She did not have a history of being hospitalized, surgery and other systemic diseases. Her family's medical history and her dental history related to her complaint was also insignificant.

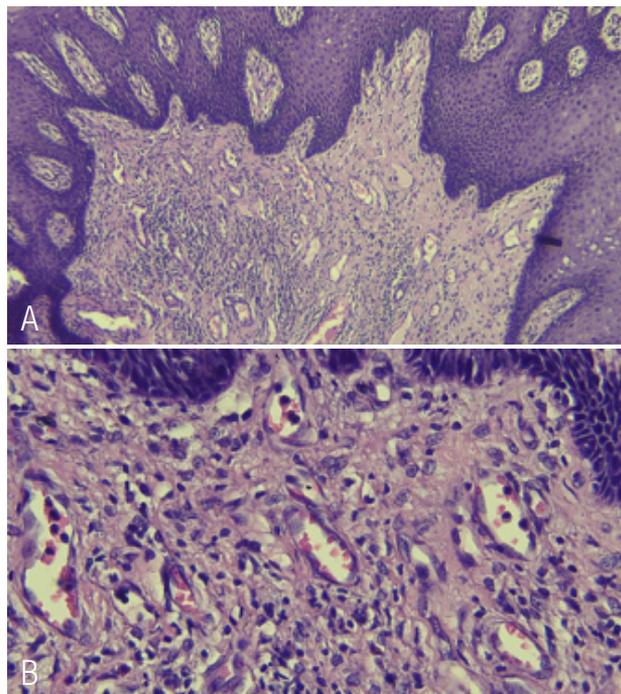
There was no abnormalities on extra oral.

Intraoral examination showed a nodule on the left buccal mucosa with a diameter of  $\pm 0.5$ cm, round, single, well-defined, soft in consistency, slight erythematous, painless (Figure 3). We diagnosed traumatic fibroma with a differential diagnosis of squamous papilloma. We referred to oral surgery clinic for excision and for histopathology examination.

At the next visit, 4 weeks later, a nodule excision procedure was performed. The results of the histopathological examination was a diagnosis of fibrous hyperplasia with chronic inflammation. On a microscopic examination (Figure 4). It appeared that the fibrous tissue covered by a monomorphous complex squamous epithelium, consisting of proliferated blood vessels. It was found histiocyte and the lymphocytes. There was no sign of malignancy. In the second week after the excision, the wound of the surgery was completely closed.



**Figure 3.** Nodule on the left buccal mucosa with a diameter of  $\pm 0.5$ cm, round, single, well-defined, soft in consistency, slight erythematous, painless.



**Figure 4.** A). Fibrous tissue covered by a monomorphous complex squamous epithelium (H&E, 40x). B). Stroma consisting of proliferated blood vessels, histiocyte and the lymphocytes (H&E, 100x).

## DISCUSSION

These cases report presented oral fibrous hyperplasia which clinically termed by oral irritation/traumatic fibroma with the clinical presentation of the both cases on different locations. A study showed that fibroma is the most oral reactive lesion in oral mucosa (17). In the case one, the lesion located on the anterior palate which is uncommon site for fibroma. Other case have been reported also in the palate (11-13). In the case two the location in left buccal mucosa which may be the common site of fibroma because correspond to occlusal area of teeth. The case two location was similar with other case reports (7,8). Most oral fibroma cases are reactive lesion due to irritation or trauma (2,3). However, the patients in our cases did not recognized the cause of the lesion in both cases. In case two, trauma from teeth biting during chewing may aggravate the condition but, it was not clear whether the trauma from the teeth occlusal surface initiate the lesion for the first time. However, trauma may be a part of explanation as the cause of the lesion. On the contrary, in the case one, it was unclear whether trauma or irritation may be the cause of the lesion since there was not a suspicious source of trauma or irritation for the lesion including other external source of the lesion such as prosthesis and bad habit. However, the combination external and internal factor may contribute to the lesion development (12).

In case one, the duration of lesion was longer than case two, hence, the size of the lesion larger than case two. This characteristic is the main clinical feature of fibroma which is the benign exophytic lesion in oral cavity (2). The diagnosis of oral fibroma was taken based on the characteristic of the lesion which have relatively slow progress mass, single, soft consistency, smooth surface, and normal color appearance. This characteristic is similar with other oral fibroma which tend to be

slow growth of single mass that have been reported (11-13).

Since there was lack of history of the probable cause of the lesions that would be the main etiology of these lesion, histopathology examination was mandatory to established definitive diagnosis of the lesions (10-13). The result of histopathology examination revealed that both lesions in case one and case two were fibrous hyperplasia. The result of histopathology examination was similar with other case reports (10-15). The different feature was seen in histopathology result in case two which accompanied by slight infiltration of inflammatory cells and there was not seen in the case one. This histopathology examination result was similar with other cases of fibroma in buccal mucosa (8,9). This may explain the probable irritation from chronic occlusal trauma from teeth to the lesion. However, in the case one, trauma from teeth may be minimal since the location of the lesion was not correspond to occlusal force directly from the occlusal plane of teeth which may cause the lesion. The irritation may also exaggerate to the lesion growth during chewing.

Although oral fibroma was not malignant tumor, the excision of the lesion have to be performed not only for the treatment of the lesion but also to have laboratory examination for histopathology of the lesion to support diagnosis (6,10). The elimination of identified causes may be crucial for the treatment, however the excision would be the best intervention for the unidentified cause of the lesion to restore the oral cavity function of the patients respectively.

## CONCLUSION

The diagnosis of a single mass in oral cavity may have several causes. The diagnosis a mass with unidentified causes may need histopathology examination to have final diagnosis.

## AUTHOR CONTRIBUTION STATEMENT

Conceptualization and design: H.S.  
 Literature review: H.S.  
 Methodology and validation: H.S.  
 Formal analysis: S.R.S., E.N.P.D., and H.S.  
 Investigation and data collection: S.R.S., E.N.P.D., A.R.K., and R.M.  
 Resources: S.R.S., and E.N.P.D.  
 Data analysis and interpretation: S.R.S., E.N.P.D., and H.S.  
 Writing-original draft preparation: S.R.S., E.N.P.D., and H.S.  
 Writing-review & editing: S.R.S., E.N.P.D., and H.S.  
 Supervision: C.Y.H.  
 Project administration: H.S.  
 Funding acquisition: S.R.S., E.N.P.D., A.R.K., R.M., and H.S.

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