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Fibrous epulis: A tumorlike gingival lesion

A 40-YEAR-OLD WOMAN presented with a 1-year history of an enlarging mass on the maxillary gingiva. The mass had been resected 4 years ago but had grown back. She said that she was otherwise in good health.

Examination revealed a nodule—well-circumscribed, smooth, elastic, hard, measuring 20 mm by 18 mm—on the left maxillary anterior gingiva (**Figure 1**). In addition, the left maxillary second incisor was hypermobile, with poor-quality dental restorations. Examination of the neck found no cervical lymphadenopathy.

Computed tomography showed a well-demarcated, rim-enhanced soft-tissue mass in the left maxillary anterior gingiva with slight bone resorption at the left maxillary second incisor (**Figure 2**).

Biopsy was performed, and histopathologic study revealed keratinized epithelium overlying fibrous connective tissue with infiltration of inflammatory cells.

Based on these findings, we diagnosed recurrent fibrous epulis, resected the nodule, and extracted the loose tooth. At follow-up 20 months later there was no evidence of recurrence.

CLINICAL RECOGNITION AND DIAGNOSIS

Fibrous epulis, a type of inflammatory fibrous hyperplasia of the gingiva, is a relatively common tumorlike lesion.^{1,2} The possible origin is the periosteum and the periodontal ligament.^{1,2} Factors that lead to its development are local irritations such as poor-quality dental restorations, dental plaque, and calculus.^{2,3}

The estimated prevalence of fibrous epulis is 0.09%. It occurs at a wide range of ages and in women more often than men.⁴ Most lesions

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Figure 1. A well-circumscribed, smooth-surfaced, elastic, hard nodule, 20 mm by 18 mm, on the left maxillary anterior gingiva.

occur on the maxillary anterior interdental papilla.^{1,2,4}

Clinically, fibrous epulis is an asymptomatic, exophytic, smooth-surfaced or focally ulcerated, mucosal-colored mass with a variable growth rate.^{2,3} At presentation, most lesions are 10 mm to 20 mm in diameter; those that are large or grow rapidly tend to be misdiagnosed as neoplastic.^{2,3}

On computed tomography, lesions appear as a soft-tissue mass in the gingiva with mild enhancement, and up to one-third contain calcifications that can be easily seen.^{1,3} These calcified lesions are termed *mineralizing fibrous epulis* or *peripheral ossifying fibroma*.¹ Bone resorption is relatively uncommon.⁵

Histologically, fibrous epulis shows hyperplastic epithelium that overlies fibrous connective tissue.¹ Mineralized tissue, if present, consists of trabeculae or droplike metaplastic bone.¹

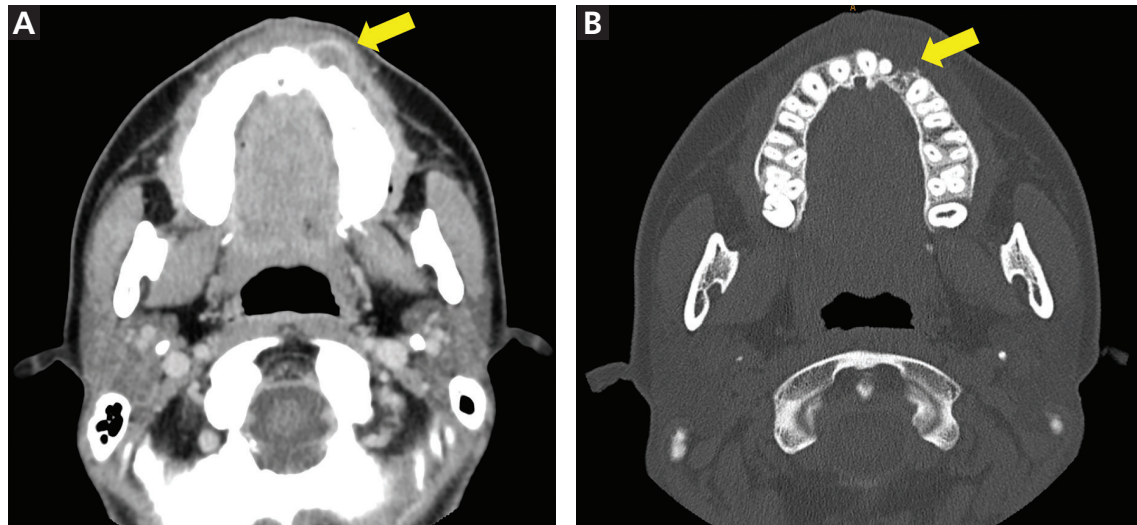


Figure 2. Computed tomography shows a well-demarcated, rim-enhanced soft tissue mass in the left maxillary anterior gingiva (A, arrow), with slight bone resorption at the left maxillary second incisor (B, arrow).

The differential diagnosis includes pyogenic granuloma, peripheral giant cell granuloma, fibroma, peripheral odontogenic fibroma, fibrosarcoma, and squamous cell carcinoma.^{1,3,5} A slowly growing mass on the interdental papilla with local irritations and calcifications detected by computed tomography should raise suspicion of fibrous epulis.³ However, distinguishing fibrous epulis from the other conditions listed above may be difficult, and thus, histopathologic study is crucial.^{2,3}

REFERENCES

1. Brierley DJ, Crane H, Hunter KD. Lumps and bumps of the gingiva: a pathological miscellany. *Head Neck Pathol* 2019; 13(1):103–113. doi:10.1007/s12105-019-01000-w
2. Fonseca GM, Fonseca RM, Cantin M. Massive fibrous epulis—a case report of a 10-year-old lesion. *Int J Oral Sci* 2014; 6(3):182–184. doi:10.1038/ijos.2013.75
3. Moon WJ, Choi SY, Chung EC, Kwon KH, Chae SW. Peripheral ossifying fibroma in the oral cavity: CT and MR findings. *Dentomaxillofac Radiol* 2007; 36(3):180–182. doi:10.1259/dmfr/59377498
4. Shulman JD, Beach MM, Rivera-Hidalgo F. The prevalence of oral mucosal lesions in US adults: data from the Third National Health and Nutrition Examination Survey, 1988–1994. *J Am Dent Assoc* 2004; 135(9):1279–1286. doi:10.14219/jada.archive.2004.0403

TREATMENT

Complete excision and curettage of the lesion is the preferred treatment because the recurrence rate is high, from 7% to 45%.³ Therefore, long-term follow-up is essential. Tooth extraction is not indicated unless there is underlying bone resorption.

DISCLOSURES

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lence of oral mucosal lesions in US adults: data from the Third National Health and Nutrition Examination Survey, 1988–1994. *J Am Dent Assoc* 2004; 135(9):1279–1286. doi:10.14219/jada.archive.2004.0403

5. Singh D, Pranab A, Mishra N, Sharma AK, Kumar S, Gupta P. Epulis—commonly misdiagnosed entity: a report of 2 cases. *J Interdiscipl Med Dent Sci* 2018; 6(2):2. doi:10.4172/2376-032X.1000230

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The mass, resected 4 years ago, had grown back