A 65-year-old female presented to the emergency clinic of the Columbia University College of Dental Medicine with a chief complaint of a “growth” involving her mandibular gingiva. Her past medical history was noncontributory. She denied any history of tobacco use but did endorse social use of alcohol (approximately one to two drinks per week). The patient was unsure of the exact duration of the lesion, but said it had been present and slowly growing for “a few months.”

Clinical examination revealed an exophytic, sessile pink to red colored nodular mass of the left anterior mandibular facial gingiva involving the incisor-canine region (Figure 1). The surface of the lesion appeared partially ulcerated and was covered by a yellow-tan pseudomembrane. Heavy plaque and calculus deposits were seen involving the adjacent dentition. Radiographic examination of the area revealed bone loss associated with periodontal disease, but was otherwise unremarkable. An excisional biopsy was recommended for definitive management of the lesion and for confirmation of the clinical diagnosis.

Microscopic examination revealed soft tissue partially covered by stratified squamous epithelium. Within the soft tissues, areas of metaplastic bone formation and dystrophic calcifications were seen (Figure 2). Therefore, a final diagnosis of a peripheral ossifying fibroma was rendered.

Discussion
The peripheral ossifying fibroma is a benign, reactive gingival lesion caused by local irritation or trauma. It, along with the peripheral giant cell granuloma and the pyogenic granuloma are colloquially referred to as the “3Ps” of gingival growths. Peripheral ossifying fibromas most often involve either the maxillary or mandibular anterior facial gingiva. They are typically pale-pink in color, but may develop a reddish appearance if they are secondarily ulcerated and inflamed. They may be seen in any age group, but are most frequently detected during the second to fourth decades of life. In some instances, larger lesions may cause a superficial cupping resorption of the bone.

Due to the clinical similarities between the peripheral ossifying fibroma, pyogenic granuloma, and peripheral giant cell granuloma, they can only be distinguished microscopically. The hallmark histopathologic finding in a peripheral ossifying fibroma is the presence of metaplastic bone and/or dystrophic calcifications within the connective tissue stroma.

Treatment of a peripheral ossifying fibroma consists of excision of the lesion, along with removal of any local irritative factors. The surrounding teeth should be appropriately scaled to remove any plaque or calculus which may serve as a nidus for continued irritation and increase the risk of lesion recurrence. Submission of the excised tissue is important for confirmation of the clinical impression. Gingival
malignancies, such as squamous cell carcinoma and metastatic carcinoma to the oral cavity may closely resemble the clinical appearance of reactive gingival lesions.\(^4\)

References


Figure Legend

**Figure 1:** Clinical evaluation revealed a red, partially ulcerated nodular mass lesion involving the anterior mandibular facial gingiva.

**Figure 2:** Microscopic examination revealed hypercellular soft tissue partially covered by surface epithelium. Within the connective tissue, an area of bone formation is seen (marked by *).
Follow-up Questions:

1. Which of the following statements is true regarding the peripheral ossifying fibroma?
   a. It is a benign neoplasm
   b. It may form in response to local irritation or trauma
   c. It is a clinically diagnostic entity
   d. It is a locally aggressive, malignant tumor
   e. A and C only

2. Which of the following is NOT considered one of the "3Ps" of reactive gingival growths?
   a. Pyogenic granuloma
   b. Peripheral ossifying fibroma
   c. Peripheral giant cell granuloma
   d. Parulis

3. Microscopic analysis of a peripheral ossifying fibroma will demonstrate ___ within the connective tissue.
   a. Blood vessels
   b. Multinucleated giant cells
   c. Metaplastic bone and/or dystrophic calcifications
   d. Granulomatous inflammation
   e. Invasive tumor nests

   f. Squamous cell carcinoma of the gingiva may clinically resemble reactive gingival lesions such as the peripheral ossifying fibroma.
   g. True
   h. False

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Answers: 1b, 2d, 3c, 4a