

MINISTRY OF HIGER EDUCATION AND SCIENTIFIC RESEARCH

UNIVERSITY OF AL_QADISIYAH / COLLEGE OF DENTISTRY

peripheral ameloblastoma

Graduation research

Submitted to college of dentistry / Al_ Qadisiyah University

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بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

﴿وَمَا تَوْفِيقِي إِلَّا بِاللَّهِ عَلَيْهِ تَوَكَّلْتُ وَإِلَيْهِ أُنِيبُ﴾

صدق الله العلي العظيم

الآية (88) من سورة هود



Introduction:-

The **peripheral ameloblastoma** (PA) is an exophytic growth localized to the soft tissues overlying the tooth-bearing areas of the jaws, the initial diagnosis often being fibrous epulis.

PA, also known as extraosseous ameloblastoma, is an extremely rare variant, representing 1-2% of all ameloblastomas .It develops in the gingiva , usually in the area of mandibular canine/premolar and can be clinically observed as an exophytic sessile nodule with firm consistency . It is generally painless and nonradiolucent and it is thought to derive from the gingival epithelium or from remnants of the dental lamina.

Peripheral ameloblastoma is believed to be the rarest subgroup, making up for 2 to 10% of all ameloblastomas. From its first description by Kuru in 1911 to date, less than 200 cases of PA have been described in literature.

PAs commonly affect the mandible , especially the lingual gingiva in the premolar region , followed by the anterior region . In the maxilla, the most common location is the soft palatal tissue of the tuberosity area .

In most cases there is no radiological evidence of bone involvement, but a superficial bone erosion known as cupping or saucerization may be detected at operation. The overall average age is 52.1 years, slightly higher for males (52.9 years) than for females (50.6 years). Thus, the PA occurs at a significantly higher age than the intraosseous ameloblastoma (IA-37.4 years). The male/female ratio is 1.9 : 1, as opposed to 1.2 : 1 for the IA. As to the location of PA, the maxilla/mandible ratio is 1:2.6. The mandibular premolar region accounts for 32.6% of all sites.

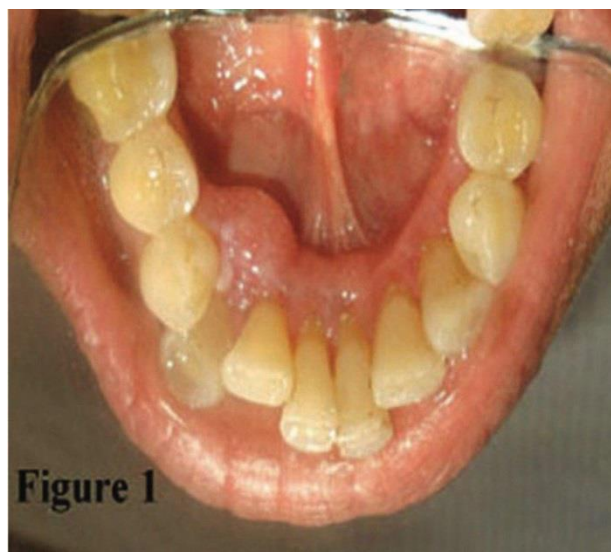


Figure 1

Clinical features

PERIPHERAL AMELOBLASTOMA:

These are small, rare, benign lesions that occur usually on gingiva or alveolar mucosa and are less than 1.5 cm. The peripheral ameloblastoma originates probably from the dental lamina or from the epithelial cells of surface epithelium.

Clinically, the lesion exhibits as pedunculated or sessile, painless growth that may be located on the gingiva or alveolar mucosa. These have been reported in individuals of 52 years of age mostly. The lesion commonly occurs in the posterior part of mandibular gingiva or alveolar mucosa. The peripheral ameloblastoma may infiltrate the underlying connective tissue but not to an extent of bone. Sometimes this lesion may cause superficial resorption of bone by pressure and is referred to as cupping or saucerization.



Histological

The interface of the epithelial cell proliferation with surrounding stroma is distinct and can be seen .

Some ameloblastomas show a predominance of follicular pattern, with numerous open spaces or follicles exaggerating the follicle formation

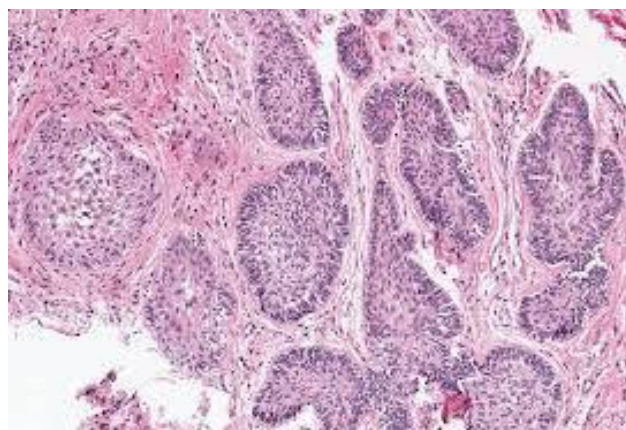
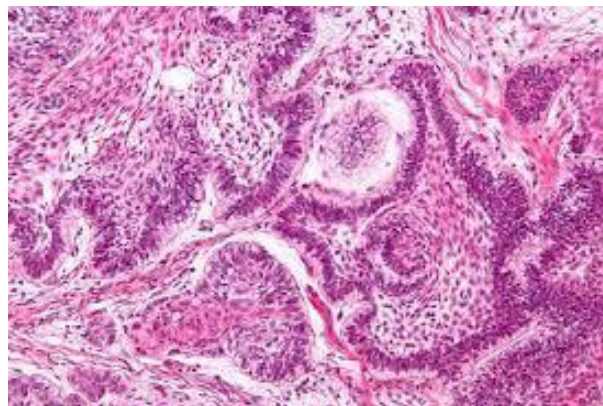
Acanthomatous pattern have extensive squamous change in large sheet of cells with prominent keratinization and intercellular bridge, both of these patterns have distinct peripheral nuclear reverse polarity

Agranular cell pattern exist in which the cells have granular cytoplasm but still maintain a peripheral nuclear reverse polarity .

A very rare pattern with a predominance of island of basaloid cells also exists.

In this type there is no stellate reticulum but the peripheral nuclei that surround basaloid cells are more cuboidal in shape.

The tumor is characterized by long anastomosing cords of slightly eosinophilic cells .Although there is some peripheral polarization,not nearly developed as in follicular or even acanthomatous types, and these peripheral cells tend to be more cuboidal than columnar.

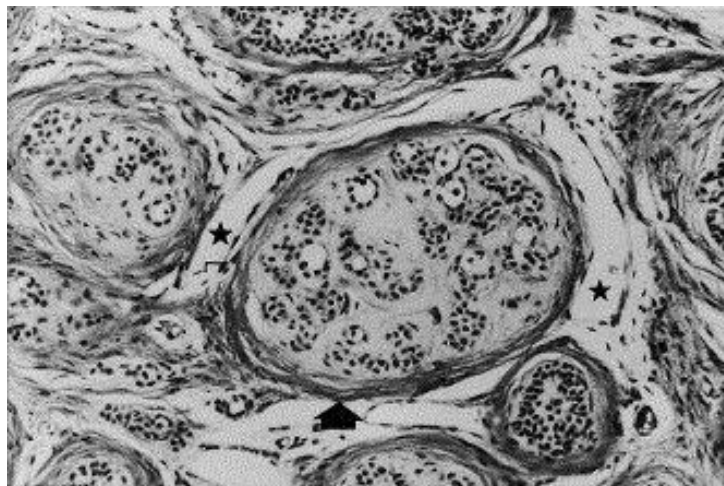


Differential Diagnosis

Extremely important to rule out (with radiographs) an intraosseous (central) ameloblastoma that has eroded through the cortical bone and lies in the gingiva because peripheral ameloblastomas are not locally aggressive lesions, whereas intraosseous ones are.



Odontogenic gingival epithelial hamartoma is likely an epithelium-rich variant of the peripheralodontogenic fibroma and shows bland-appearing epithelium without peripheral palisading.



Extrasosseous squamous odontogenic tumors are rare and do not show palisading or reverse polarization of peripheral cells.



Basaloid squamous cell carcinoma shows significant epithelial atypia and synchronous conventional squamous cell carcinoma.



Diagnosis

Ameloblastoma diagnosis might begin with tests such as:

Imaging tests. X-ray, CT and MRI scans help doctors determine the extent of an ameloblastoma. The growth or tumor may sometimes be found on routine X-rays at the dentist's office.

Tissue test. To confirm the diagnosis, doctors may remove a sample of tissue or a sample of cells and send it to a lab for testing.

Treatment

Ameloblastoma treatment may include:

Surgery to remove the tumor. Ameloblastoma treatment usually includes surgery to remove the tumor. Ameloblastoma often grows into the nearby jawbone, so surgeons may need to remove the affected part of the jawbone. An aggressive approach to surgery reduces the risk that ameloblastoma will come back.

Surgery to repair the jaw. If surgery involves removing part of your jawbone, surgeons can repair and reconstruct the jaw. This can help improve how your jaw looks and works afterward. The surgery can also help you to be able to eat and speak.

Radiation therapy. Radiation therapy using high-powered energy beams might be needed after surgery or if surgery isn't an option.

Supportive care. A variety of specialists can help you work through speaking, swallowing and eating problems during and after treatment.

After treatment, you'll likely have regular follow-up appointments for several years.

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