acutely with anticonvulsants, muscle relaxants, and benzodiazepines.

Visualization of the vascular structure and the nerve is best achieved in oblique sagittal gradient MR imaging, which is reported to have a 75.9% sensitivity for identification of facial nerve compression by the anterior inferior cerebellar artery or the posterior inferior cerebellar artery, the first and second most common offending vessels, respectively.

Neurovascular compression involving the vertebral artery, which accounts for a minority of cases (17%), can be evaluated with 100% sensitivity due to the vessel’s larger caliber. MRA and computed tomography angiography have demonstrated similar utility in identification of pathologic vessels.

References

A dentigerous cyst is a development cyst that surrounds and envelops the crown of an unerupted tooth, attached at the crown-root (cemento-enamel or cervical) junction. Dentigerous cysts account for about 20% of all odontogenic cysts, developing during a peak age of 10 to 30 years, with a male predilection (3:2). The lesion presents in the mandible (3rd molar region) about twice as often as the maxilla (near maxillary canines).

Patients are usually asymptomatic, so these cysts are incidentally discovered during routine dental imaging. However, pain may be experienced with bone expansion or resorption of adjacent teeth. Imaging studies (orthopantomographs) usually show a unilocular radiolucency surrounding the crown of the affected tooth (figure 1), with a well-defined sclerotic border. Cyst enucleation or extraction is generally employed, although marsupialization is sometimes used for larger lesions.

Histologically, there is a difference in findings depending on whether the lesion is inflamed. The noninflamed cyst shows 2 to 3 cell layers of cuboidal to squamous cells adjacent to fibrous connective tissue (figure 2), rarely showing ciliated, mucous, or sebaceous cells. The inflamed cyst shows a much thicker, proliferative epitelium, with hyperplastic rete, chronic inflammation (figure 2), and sometimes hyalinized keratin (Rushton bodies). Cholesterol clefts are common.

The differential diagnosis includes a dental follicle, an eruption cyst (a soft-tissue cyst overlying the erupting tooth), a glandular odontogenic cyst, and a unicystic ameloblastoma, while an odontogenic keratocyst may also be considered.

Suggested reading

From the Department of Pathology, Southern California Permanente Medical Group, Woodland Hills Medical Center, Woodland Hills, Calif.