

## Case description

Female patient, 35 years old, with a history of allergic rhinitis and medicated daily with diosmin 300mg. The main complain was a severe pain in the right ear. Through computed tomography (TC) it was identified a lesion compatible with odontogenic cyst associated with the impacted third molar (tooth 48), which was located from the body of the mandible to the mandibular foramen. The presence of malignant cells was excluded through an aspirative puncture. Before surgery, the patient was medicated and informed of the postoperative care, as well as the possible risks of surgery.

The lesion enucleated had 4 x 2 cm, it was partially open and filled with a milky like liquid. The anatomo-pathological analysis diagnosed the lesion as a dentigerous cyst (follicular). The surgical site was curetted, covered with a collagen membrane and sutured with 4.0 suture. The postoperative showed no infection, however the patient suffered a mandibular nerve paresthesia that lasted two months.

## Case report

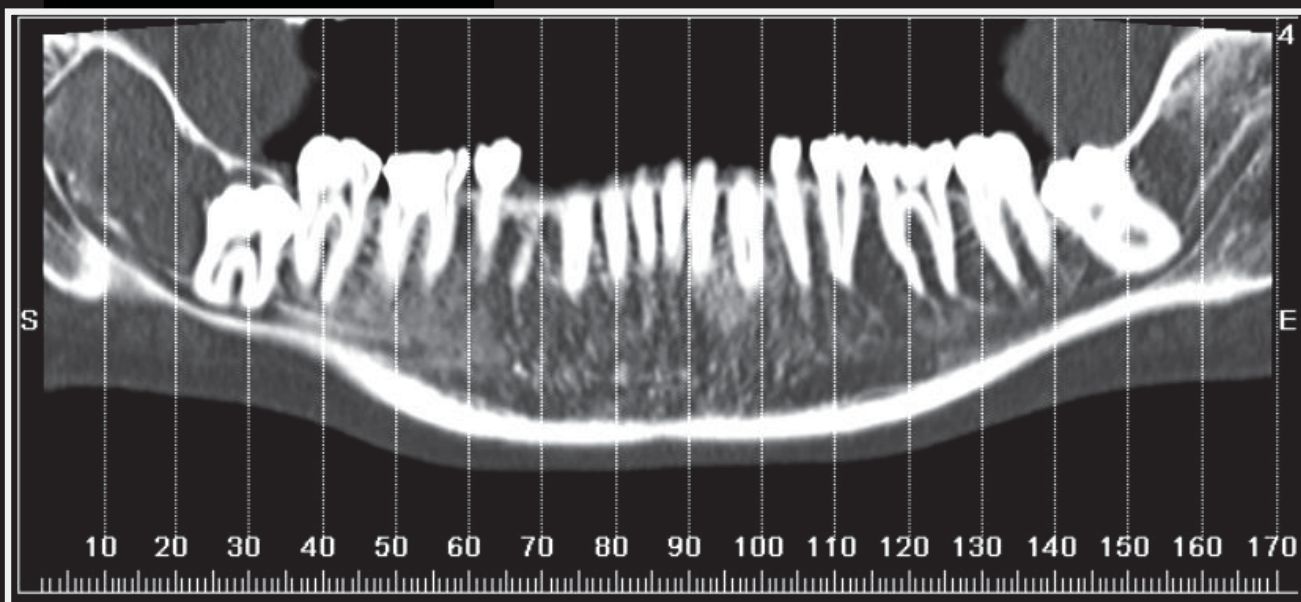


Fig. 1. CT.

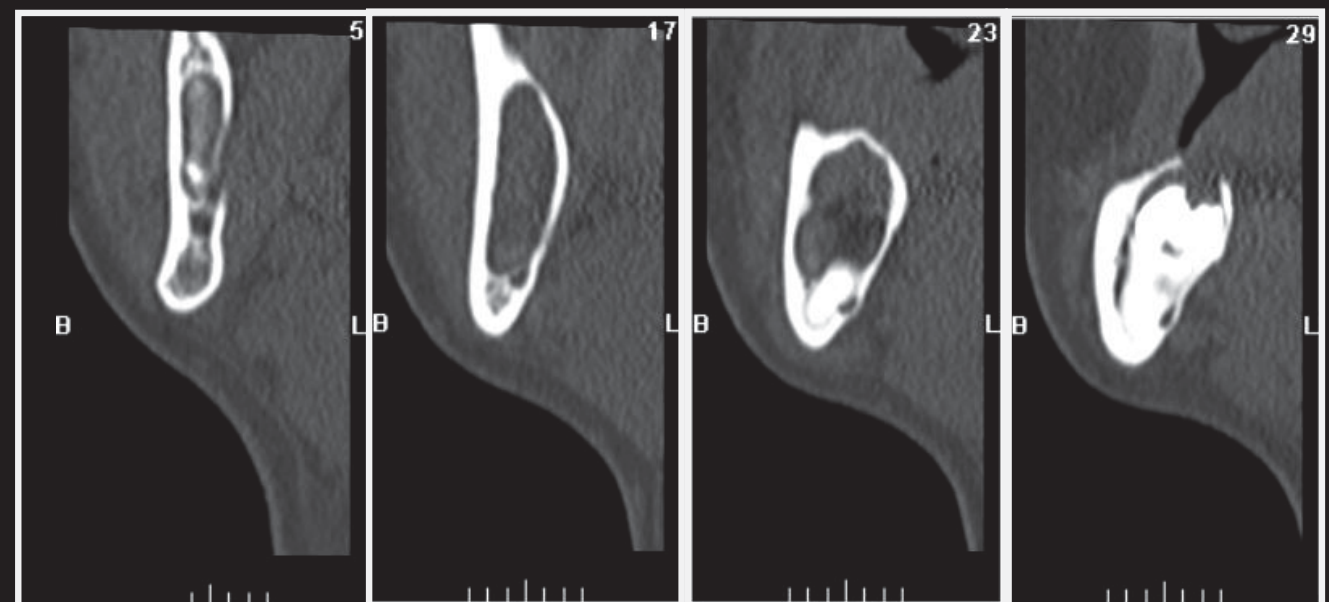


Fig. 2. CT - Sagittal cuts.



Fig. 3. Aspirative puncture.



Fig. 4. Photography prior to surgery.

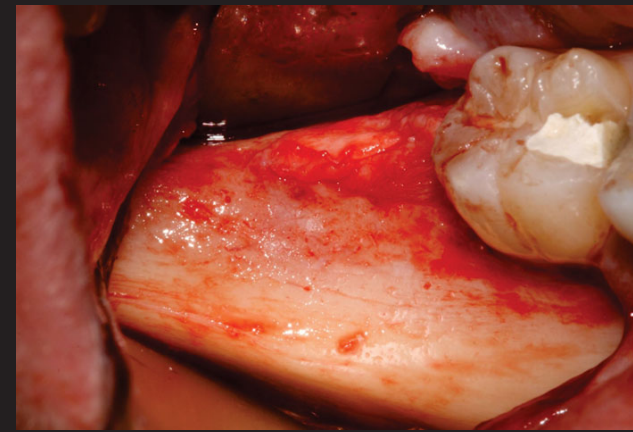


Fig. 5. Full thickness flap.



Fig. 6. Osteotomy and exposure of the lesion.



Fig. 7. Detail of the surgical site.



Fig. 8. Lesion and tooth extracted.



Fig. 9. Guided Bone Regeneration.

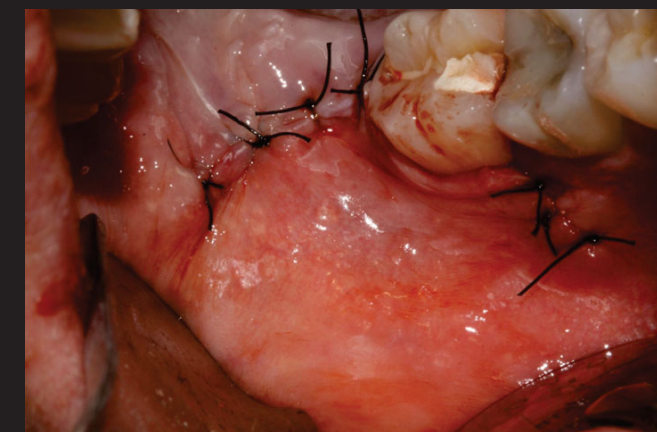


Fig. 10. Suture 4.0.

*Surgery performed by David Alfaiate*

## Discussion

Third molars are the teeth most likely to remain included. Near 98% of dental inclusions refer to third molars. In recent decades there has been an increase in the inclusion of third molars. Approximately 33% of the inclusions are associated pathologies (1).

Regarding the inclusion of a third molar, the clinician can choose between having an expectant conduct and doing the extraction. In cases where there is a risk of affecting the teeth near and/or to develop lesions, tooth extraction is the safest option. Although some authors advocate watchful waiting, preventive dental extraction has best postoperative results in asymptomatic cases (2-5).

The dentigerous cyst consists of reduced enamel epithelium and remnants of dental lamina. The prevalence of dentigerous cysts associated with the included third molar extraction is between 1.5 and 13.3% (2-5). In most cases it is a radiographic finding of late detection and, sometimes, with involvement of anatomical structures. After the radiographic diagnosis, is necessary to obtain a histological confirmation (5). The malignant potential is reduced (4).

## Conclusions

Preventive extraction of third molars can prevent the development of pathologies, reduce the operative risk and avoid compromising the underlying anatomical structures.

## Bibliography

1. Werkmeister R, Fillies T, Joos U, Smolka K. Relationship between lower wisdom tooth position and cyst development, deep abscess formation and mandibular angle fracture. J Craniomaxillofac Surg 2005;33:164-8.
2. Oliveira DM, Andrade ES, Silveira MM, Camargo IB. Correlation of the radiographic and morphologic features of the dental follicle of third molars with incomplete root formation. Int J Med Sci 2008;5:36-40.
3. Edamatsu M, Kumamoto H, Ooya K, Echigo S. Apoptosis related factors in the epithelial components of dental follicles and dentigerous cysts associated with impacted third molars of the mandible. Oral Surg Oral Med Oral Pathol Oral Radiol Endod 2005;99:17-23.
4. Yildirim G, Ataogha H, Mihmanli A, Kizilođlu D, Avunduk MC. Pathologic changes in soft tissues associated with asymptomatic impacted third molars. Oral Surg Oral Med Oral Pathol Oral Radiol Endod 2008;106:14-8.
5. Wali GG, Sridhar V, Shyla HN. A study on dentigerous cystic changes with radiographically normal impacted mandibular third molars. J Maxillofac Oral Surg. 2012 Dec;11(4):458-65.