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Surgical Approach of a Dentigerous Cyst in regard to a clinical case

Description of Clinical Case

Reason for Consultation

A 54-year-old woman came to the Dental Service at the Armed Forces Hospital, and mentioned "I feel discomfort with the prosthesis on the right side" sic

Clinical History

Healthy patient, non-smoker, female without alcohol habits. Denied using any kind of medication.

On the first appointment was requested one Orthopantomography. With this complementary diagnostic exam an inclusion of teeth # 44 and # 45 was found as well as a radiolucent lesion involving the # 48 tooth with approximately 3cms, well-defined, unilocular, suggestive of a cystic lesion.

Diagnosis

Macroscopic lesions and clinical characteristics of the product were consistent with Dentigerous cyst. The enucleated specimen was sent to Pathological Anatomy for analysis. According to the anatomopathological report, the sample consisted of connective tissue, with rare inflammatory cells, stratified squamous epithelium coated with several layers of cells.

Areas with epithelial desquamation were identified.

Anatomopathological diagnosis: dentigerous cyst.

Prognosis

Excellent prognosis when the cyst is enucleated, recurrence is rare.

Treatment

Before surgery, it was requested a CT Dental Scan with 3D reconstruction allowing an adequate surgical planning. After Anesthesiology's consultation the patient was hospitalized and underwent surgery for third molar extraction, cystic enucleation and extraction of # 44 and # 45.

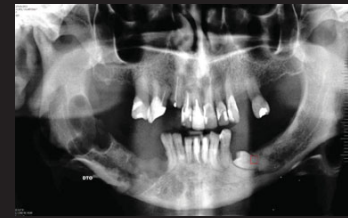
A full thickness flap was performed from the ascending ramus of the jaw to the distal surface of tooth # 43 with discharges. We proceeded to the extraction of tooth and enucleation. After enucleation of associate injury we have proceeded to irrigation with saline and subsequently repositioned the flap and sutured with silk suture 3/0.

The excised part was sent to the Pathologist for histological analysis. The patient was medicated with Amoxicillin + Clavulanic Acid 875mg + 125mg every 12 hours for 8 days in association with Metronidazol 250 mg every 12 hours for 8 days. Deflazacort was also prescribed 30 mg and Clonixin every 6 hours in SOS. It was recommended a soft diet for a week and the application of ice and 0.12% chlorhexidine gel onto the Post surgical area. After 8 days the sutures were removed.

Follow-up after 1, 3 and 6 months was conducted.



A) Initial Orthopantomography



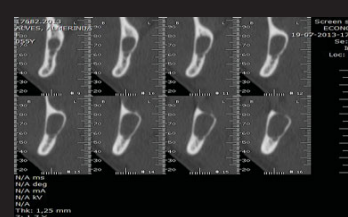
B) Pos-Op Orthopantomography



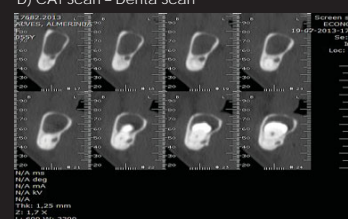
C) CAT Scan - 3D Reconstruction



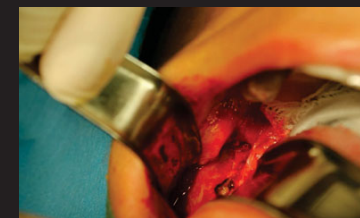
D) CAT Scan - Denta Scan



E) Incision and periosteum



F) Osteotomy



G) Enucleation



H) Surgical aspect



I) Excised piece



J) 400X (HE)

Discussion

The dentigerous cyst is formed from the accumulation of fluid between reduced enamel epithelium and the crown of an unerupted tooth.¹ It is the second most common type of odontogenic cyst with an occurrence of about 24% compared to all cysts of the jaws² and is seen more frequently associated with mandibular third molars, maxillary canines and upper third molars³ and present themselves mainly as unilateral cysts, unilocular with asymptomatic episodes of acute pain occurring when there is secondary infection. In tomographic exams, these lesions are presented with well defined edges and unilocular associated with crowns of impacted teeth, including the cemento-enamel junction.³ This lesion is usually small however when larger leads to some cortical expansion and a decrease in thickness and can lead to bone fracture. Treatment selection is based on age, size, location, root development, tooth position and relationship with the adjacent teeth and vital structures. Treatment modalities are enucleation or marsupialization.²

Conclusion

Complementary diagnosis exams are important both for planning issues either for reasons of identification of potentially clinical and pathological situations adjacent to the reason for patient consultation. Our patient complained of pain at the level of pre-molars, because the prosthesis was traumatizing the inclusion zone. After request of panoramic radiography was found a suggestive radiological image of a dentigerous cyst, asymptomatic, but with considerable dimensions.

Bibliography

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