

Swelling of the Lower Face Caused by OKC, Case Report

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Abstract

In 2017 WHO considered the odontogenic keratocyst (OKC) as an odontogenic development cyst. While in 2005 the same association considered it as a lesion of odontogenic tumor.

This cystic lesion is considered as an aggressive with good chance of local recurrence after regular surgical intervention. That makes the radical surgical treatment is the treatment of choice. Most of the time it presents a symptomatically, but the patient can report the pain symptomatology. Here I am reporting a case report of 17 years old girl that was treated by removal of good part of her mandible with a splint replacement and to be bone grafted in a later surgery.

Keywords: *Keratocystic Odontogenic Tumor; Benign Tumor; Surgery; Mandible*

Introduction

The odontogenic keratocyst is a developmental odontogenic cyst that shows local aggressiveness and high relapse rate [1,6]. This lesion is classified by authors as developmental odontogenic cyst, while others consider it as odontogenic keratocyst tumor [3,4,7].

Clinically, OKC presents itself asymptotically, usually with a medullary growth pattern, which causes minimal expansion of the cortical bone, but sometimes it may be related to pain and aggressive growth. It mainly hits the posterior region of mandible with common involvement of mandibular angle and third molar area [2-4,6]. Radiographically, it appears as a well-defined radiolucent area, presenting marginal delimitation, that can be as a mono or multilocular kinds cavities [2-4,6,8]. It shows a similar radiographic picture of that of ameloblastoma, of the mandible region.

The microscopic picture of this lesion shows a layer of stratified squamous epithelium composed of between 6 to 10 cells. The cells of the basal layer of this epithelium most often appear hyper-

stained and arranged in a stockade pattern [5,8]. The interface between epithelium and connective tissue is usually flat and the keratin of the most superficial layer is para keratinized and presented in a corrugated shape [2,4,5,8].

Its aggressive behavior and the large possibility of post-surgery relapse makes the clinical resection with some safety margins the indicated treatment.

This article is to report a case of odontogenic keratocyst of the angle of the mandible, that was treated with surgical resection and splint replacement of the removed part of 17 years old female.

Case Report

A 17 years old white female was referred to the maxillofacial surgery department with chief complain of a slow increase in size asymptomatic swelling of the right lower face.

Her dentist primary diagnosis was cyst of the left mandible. The clinical intraoral exam revealed partial absence of the lower buccal vestibule at the molar area.

Radiographic exam shows a cystic like lesion of the angle of the mandible (Figure 1).

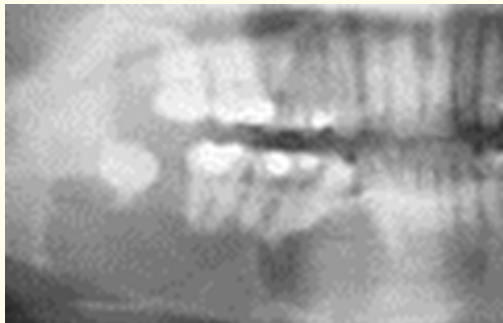


Figure 1

Patient was admitted to the hospital for further evaluation and surgery.

The histopathology of the specimens revealed an odontogenic keratocyst (Figure 2).



Figure 2

She was sent to the prosthetic department with her x ray for fabrication of an acrylic splint as a temporary replacement to the part that will be removed from the jaw.

Four days later she was scheduled for surgery that was, arch bars Intermaxillary fixation, the upper bar was supported with suspension wire through the anterior nasal spine (Figure 3), the lower bar was supported with mandibular circumferential wire (Figure 4 and 5).



Figure 3



Figure 4



Figure 5

Four days later she was scheduled for surgery, that was: intermaxillary fixation, Mandibular resection and fixation of an acrylic splint, through an extraoral submandibular incision (Figure 6 and 7).

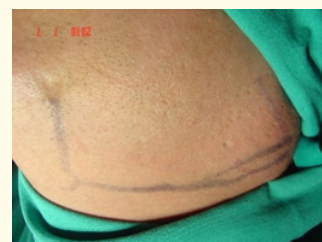


Figure 6



Figure 7

Surgery was performed under nasotracheal general anesthesia, the affected area was exposed and freed off the healthy surrounding tissue (Figure 8).

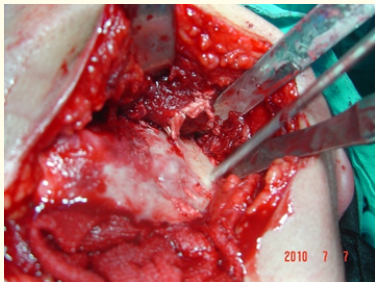


Figure 8

Two bone cuts were made, 15 mm away from the lesion border as a safety margins, on both sides of the lesion (Figure 9 and 10).



Figure 9

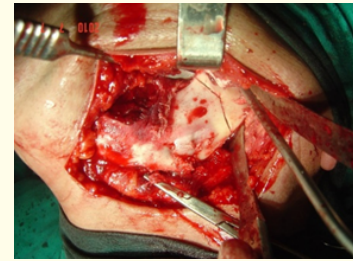


Figure 10

Then the affected part to be removed and replaced with the pre-fabricated acrylic splint, while the jaws were brought into occlusion (Figure 11).



Figure 11

The soft tissue were sutured in layers in the usual manner. The whole mass was sent for farther Pathologic exam. (Figure 12 and 13).



Figure 12

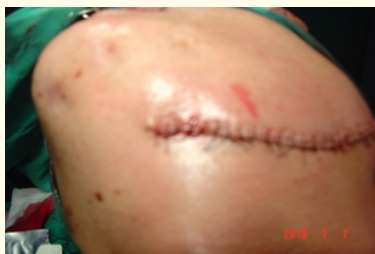


Figure 13

The whole mass (Figure 14) was sent for farther pathologic exam. Three days later the patient was discharged from the hospital to be followed as an outpatient.

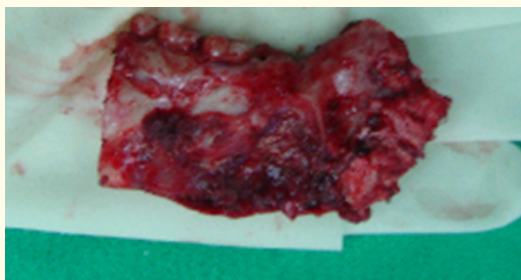


Figure 14

Discussion

Dealing with large size cases of OKC, means we are treating a pathology shows local, aggressive and high relapse rate. That let us be radical removing such lesions.

We believe being conservative treating such cases will end with a defected jaw at least.

In the site where the lesion was.

Since the main aim for the dental profession is to put and always keep the jaws together. In normal relation, immobilization of the jaw for the first two weeks after surgery will give us post op healing with less pain, swelling and end with a good jaw's relation.

In any type of intramaxillary fixation a force to the anterior teeth should not be applied. The nasal spine suspension is used for that reason.

During the first stage of surgery an acrylic splint was used, it has almost the same shape.

And size of the bone craft that will be used later, that will produce a good bed to receive this craft, where the metallic plate would not.

Dissecting the tissue away from this plate to insert the bone craft will be more difficult beside it will cause much of damage to this tissue that will receive this craft.

Conclusion

Since the OKC are considered as an aggressive with good chance of local recurrence after Surgery. They are also a symptomless lesion. Mostly found as large destructive pathology. This will make the radical surgery is indicated in many cases.

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