

Management Of Cyst – Review Article

Dr. Bala krishnan¹, Dr. Sudar vizhi.V²

1. Professor, Department of oral and maxillofacial surgery, Sree Balaji Dental and Hospital, Bharath Institute of Higher Education and Research, Chennai.

2. Undergraduate student, Sree Balaji Dental College and Hospital, Bharath Institute of Higher Education and Research, Chennai.

Corresponding author

Dr. Bala krishnan

Professor, Department of oral and maxillofacial surgery, Sree Balaji Dental and Hospital, Bharath Institute of Higher Education and Research, Chennai.

Phone Number : 9884630045

ABSTRACT

Cystic lesions of the jaws are common pathologies of chronic swelling of the jaw in oral and maxillofacial region. Depending on the size of the cyst, its location and the patients age, several treatment options are available.

Keywords :Enucleation, Marsupialization, Tooth involved in the cystic lesions bone healing

INTRODUCTION

Cystic lesions of the jaws include pseudocysts [aneurysmal bone cyst and simple bone cyst] or cystic tumours [calicifying odontogenic cyst, glandular odontogenic cyst, or unicystic ameloblastoma], which may present similar in clinical and radiographic appearance[1]. Some of the (odontogenic keratocyst [okc] calcifying odontogenic cyst, glandular odontogenic cyst, unicystic ameloblastoma, and botryoid cyst) (2) cyst can occur within bone or soft tissue

Based on the clinico-radiological picture treatment was performed by the time tested methods of enucleation, marsupialization and or with various adjunctive procedure such as chemical cautery (using carnoy's solution), peripheral ostectomy, bone grafting, plate reconstruction, Caldwell luc procedure etc or the more mundane extraction, RCT- apicoectomy or open packing with iodoform gauze, as per need curettage and segmental resection were performed in certain cases(3).

Objectives And Principles

Complete elimination of the pathologic lesion, cause minimal destruction and damage to the surrounding soft and hard tissue.

MANAGEMENT OF CYST

Enucleation or curettage

Enucleation, also called the partsch¹¹ operation or cystectomy, is a surgical technique. The lesion separated from the bone without bone removal along the tissue plane between the connective tissue envelope and the surrounding bone(8). The only bone that is removed is that which required for surgical access. Modifications are enucleation and packing, enucleation and primary closure and enucleation and primary closure with bone graft/reconstruction. Curettage is a method in which the wall of the cyst cavity is surgically scraped and its content removed.

Enucleation With Adjunctive Therapy

As a result of the difficulty in enucleating thin fibrous wall cyst in one piece and to reduce chances of recurrence or eliminate the possible vital cells left behind the defect, enucleation followed by superficial cauterizing agent may be the preferred treatment approach for some aggressive cystic lesions or cystic tumor

Marsupialization

Marsupialization, decompression, and the partsch operation all refer to creating a surgical window in the wall of cyst, evacuating the contents of the cyst and maintaining continuity between the cyst and the oral cavity, maxillary sinus, or nasal cavity. The only portion of the cyst that is removed is the piece removed to produce the window. The remaining cystic lining is left in situ. Modification of marsupialization is Waldron's method / Partsch¹¹.

Management Of Tooth / Teeth Involved In The Cystic Lesions

To extract or preserve the teeth involved in the cyst remains a dilemma usually encountered by surgeons (5). Extraction of supernumerary teeth, impacted teeth, teeth without function, and those of recurrent cases are, no doubt, one of the necessary measures. However in other situations, the treatment of involved teeth remains undefined (6). To reduce the relapse of cystic lesions, some authors recommend extraction of involved teeth after curettage (7).

Bone Healing And Radiographic Appearance

Enucleation of cystic lesions with safe closure of the wound has been the standard procedure to the present day (10), and numerous studies have evaluated the bone healing (11). The radiographic appearance of new bone formation shows as round glass or radial bone spicules in the periphery of cystic lesions or the original bone cavity (12).

Resection And Reconstruction Defects

Resection of the cystic lesions of jaws remains a challenge for surgeons. This approach, including partial resection or total resection (maxillectomy and mandibulectomy) could be justified in some cases such as cystic lesions with multiple perforations, cases of malignancy transformation within cysts and the patients with poor compliance to follow up appointments.

CONCLUSION

Conservative surgery remains an initial approach that reduces the morbidity of aggressive surgeries and preserves the anatomical structure complete bone healing for defects less than 4 cm in diameter is fast obtained before 24 months postoperatively.

ETHICAL CLEARANCE – Not required since it is a review article.

SOURCE OF FUNDING - Nil.

CONFLICT OF INTEREST - Nil.

REFERENCE

1. Kramer IR changing views on oral disease proc R soc med 1974 ;67:271-6
2. Buchbender M, Neukam EW, Lutz R, Submit CM. Treatment of enucleated odontogenic jaw cysts : A systematic review
3. Shah AA, Sangle A, Bussaris, Koshyal glandular odontogenic cyst : A diagnostic dilemma . Indian j dent.2016,17 :38-431
4. Morgan PR. Cysts and cystic lesions of the jaws .Curs Diagn Pathol.1995;2:86-93
5. Chirapathomsakul D, Sastravaha P, Jabsisyanont P. A review of odontogenic keratocysts and the behaviour of recurrences. Oral Surg Oral Med Oral Pathol Radiol Endol .2006 ;101 :5-9
6. Jia S, Lia B. Osteosarcoma of the jaws : case report on synchronous multicentric osteosarcoma .J Clin Diagn Res .2014;8:zd01-3
7. Alkan EA, Parlar A, Yilidrim B, Senguven B. Histological comparison of healing following tooth extraction with ridge preservation :A pilot study. Int J Oral Maxillofac Surg .2013 ;42:1533-8
8. Porgel MA. TREATMENT OF KERATOCYSTS .The case for decompression and marsupialization .J Oral Maxillofac Surg.2005;63:1667-73
9. Young CW, Porgel MA, Schmidt BL. Staged reconstruction with non vascularized grafts J Oral Maxillofac Surg.2007 ;65:706-12

10. Bonder L, Bar-ziv j. characteristics of bone formation following marsupialization of jaw cysts. *Dentomaxillofac Radiol* .1998;27:166-71
11. Chiapasco M, Rossi A ,Motto JJ, Crescentini M, Jones J .Spontaneous bone regeneration after enucleation of large mandibular cysts .A radiographic computed analysis of 27 consecutive cases *J Oral Maxillofac Surg* .2000;58:942-8
12. Ihan Hren N ,Milijavec M.Spontaneous bone healing of yhe large bone defects in the mandible in the mandible .*Int J Oral Maxillofac Surg* .2008;37:1111-6