DENTIGEROUS CYST IN GERIATRIC PATIENTS – A CASE REPORT

Ajay Balasaheb Mohite*1, Mayura Dilip Sanas*2

*2Prosthodontist and Implantologist. Dr. Sanas Dental Clinic and Implant Centre, Ganpatiali, Wai, District- satara, Maharashtra, India.

ABSTRACT

Dentigerous cysts are frequently found in mandibular jaw. It is also the second most common type of odontogenic cysts after radicular cyst. A dentigerous cyst is a developmental cyst of odontogenic origin which develops around the fully-formed crown of an unerupted tooth. We are present, a 72-year-old female patient with dentigerous cyst was treated successfully by marsupialization of cyst followed by extraction of impacted teeth. The patient’s chief complaint was the swelling and pain at the lower left third molar region. On Clinical examination, the patient had missing lower second molar teeth and pus discharge from lower left third molar region. On Radiographic examination, a unilocular radiolucent lesion was seen which was associated with impacted mandibular left third molar. Differential diagnosis of the lesion made was dentigerous cyst. The treatment plan was surgical removal of the impacted third molar along with marsupialization of the cyst.

KEYWORDS: cyst, enucleation, geriatric patient, impacted teeth, radiograph.

I. INTRODUCTION

Dentigerous cysts are common lesions of the maxillomandibular complex. They are defined as pathologic epithelium-lined cavities which encircles the crown portion of an unerupted tooth at the level of the cement-enamel junction. These type of cyst are detected on day to day routine intra-oral radiographs, when a tooth fails to erupt and remain impacted. Radiographically, it is very difficult to differentiate between a normal enlarged pericoronal space and a cyst; if the width of this space has reached more than 2.5mm and has an irregular outline then it is probably a dentigerous cyst. These cysts are mostly found in mandibular third molar region which is followed by maxillary third molar region, maxillary canine and mandibular second premolar. We hereby report a case of a 72-year-old female with dentigerous cyst associated with an impacted lower left third tooth.

II. CASE REPORT

A 72 year female patient visited a private dental clinic with complain of swelling and pain in the lower left region of jaw since last 5 days. On Clinical examination, pus discharge was present from lower left retro-molar region and missing lower left second premolar. On intraoral radiograph, it was seen that lower left third molar was horizontally impacted with radiolucency seen at coronal portion of the impacted tooth [Picture no.1]. Provisional diagnosis was made as dentigerous cyst. Patient was started with amoxicillin and clavulanic acid 625mg tablet two times a day and aceclofenac paracetamol tablet three times a day for 5 days. Patient was called for follow-up after 3 days. As the swelling was slightly subsided, surgical procedure was planned after 2 days.

The treatment modalities possible for cyst are enucleation or decompression/marsupialization methods depending upon cyst size and site, involvement of dentition and surrounding structures. In this case marsupialization was planned. After taking written consent and evaluation of medical history, surgery was done under local anaesthesia. Incision was given starting form first molar region and was extended to the retro-molar region, a flap was raised with the periosteal elevator. Cystic lining was removed with the help of curette forcep followed by removal of the impacted third molar tooth [Picture no.2]. The cavity was cleaned with normal saline and povudine-iodine solution irrigation [Picture no.3]. Suturing was done using silk suture material with interrupted suturing technique [Picture no. 4]. Surgical pack was applied at the operative site and was advice to the patient to hold it for 1 hour.
III. DISCUSSION

Dentigerous cyst is been found to be the second common odontogenic cyst present in human jaws after radicular/periapical cyst which is present around crown of an unerupted tooth. Dentigerous cysts account for approximately 21% of all jaw cysts.

Around 5% of dentigerous cyst are present with supernumerary teeth while around 95% of these cysts are associated with permanent dentition. The prevalence of these cysts can be related to the excessive epithelium which proliferates in the bone where the surfaces of jaw fuse during its embryologic stage. Radiographically the dentigerous cyst typically appears as a unilocular and well-circumscribed which is usually symmetric in its radiolucency but larger than that of a normal dental follicle present around the crown portion of the tooth. Radiographic types of dentigerous cyst are seen:

1. Central variety: In this variety the radiolucency surrounds the crown of the unerupted teeth. The crown can clearly be seen projecting into the cyst lumen.
2. Lateral variety: In this variety the cyst develops laterally along the tooth root, partially encircling the crown.
3. Circumferential variety: The cyst entirely surrounds the unerupted teeth. Radiologically, the unerupted teeth could be seen within the cyst cavity.

The dentigerous cyst is potentially capable of becoming an aggressive lesion. The differential diagnosis of these cyst include odontogenic keratocyst, primordial cyst and odontogenic tumors such as ameloblastoma, ameloblastic fibroma, and adenomatoid odontogenic tumor.

Standard treatment protocol for a dentigerous cyst is enucleation of cystic lining followed with removal of the associated impacted tooth. Marsupialisation is only recommended when the size of the cyst is much larger and a single draining may not be that effective. For a large cyst, Scolozzi et al. recommended enucleation followed by an immediate bone grafting procedure. In this case, we have done enucleation along with extraction of impacted third molar.
IV. CONCLUSION

Radiology plays an important role in diagnosis of dentigerous cyst. Depending upon cyst size and site, involvement of dentition and surrounding structures treatment is planned accordingly. Dentigerous cyst has two main types of surgery protocols 1) Enucleation and 2) Marsupialisation. Enucleation is carried when cyst size is small and complete cystic lining along with impacted teeth is removed, while in marsupialization size of cyst is larger and window is open for drainage of cystic fluid and once size of cyst reduces, complete enucleation is carried.

In cases of dentigerous cyst, early diagnosis and proper treatment approach for cyst removal is necessary so that further complication can be avoided.
V. REFERENCES


