



## CASE REPORT

### OSTEOMA OF MANDIBULAR CONDYLE: A CASE REPORT

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#### ABSTRACT

Condylar osteoma is a benign tumor involving the condyle of the mandible. It is a rare pathology of unknown etiology. It is thought that it may originate from either cartilage or embryonal periosteum. It is also possible that it may be a reactionary lesion triggered by trauma or infection. Here, we present a case report of a female patient aged 60 years with osteoma on the right condyle with trismus and facial deformity. We surgically removed the tumor using a pre-auricular approach.

#### INTRODUCTION

Osteoma is a benign neoplasm composed of fibro-osseous tissue involving the unregulated synthesis of either cancellous or compact bone, or both having an unknown etiology.<sup>1,3</sup> There is an ongoing debate on age and gender predilection of osteoma. Literature suggests there is no predilection of age or gender.<sup>5</sup> A few researchers argue that it occurs mostly in children and young adults aged 10 - 25 years, whereas it seldom occurs in individuals above 30 years of age.<sup>2</sup> Some studies favor that age between 14 to 58 years, averaging at the age of 29.4 years. Male patients are affected twice as compared to female patients.<sup>6</sup> They are commonly found in the maxillofacial region with the majority of cases involving paranasal sinuses infrequently diagnosed in other body parts.<sup>3,5</sup>

#### CASE REPORT

A 60 years old woman presented to the Oral and Maxillofacial Surgery Department, King Edward Medical University (KEMU), Lahore with the chief complaint of trismus from last 2 years. She was all right approximately two years back when she noticed a small painless swelling in the right preauricular area. There

were no associated signs and symptoms with it, so she did not take any medical advice. The swelling gradually increased in size, and later, she developed trismus, which gradually worsened with time. It was painless throughout its clinical course and there was no pus or blood discharge from it. There was facial asymmetry due to swelling of approximately 5x3cm in the right preauricular area on clinical examination. The swelling was extending postero-anteriorly from 5cm anterior to tragus to 3cm anterior to it and superior inferiorly from the helix's superior level to the tragus. It was well-demarcated, bony hard swelling with a smooth surface. There was no other positive clinical finding. No auditory impairment was noted. All cranial nerves were intact especially branches of facial nerve. There was trismus with no mouth opening, so intraoral exam was not possible.

All baseline investigations were performed for surgical fitness, findings were within normal limits and no systemic illness was detected. Plain radiographs, posterior-anterior view of the mandible and right lateral view of the mandible were done. Clinical and radiological diagnosis of TMJ ankylosis was made. On plain radiograph, it was approximately 5x4cm well-demarcated, radiopaque and compact mass involving the right condylar head, fossa and temporal bone. It was emerging

outward, causing facial deformity and trismus.



**Figure 1: Postero-anterior view of the mandible**



**Figure 2: Lateral view of the skull**

Before proceeding to surgery, informed consent was taken. Under general anesthesia right preauricular incision was made with temporal extension and the tumor was exposed. There was a mass involving the condyle fusing with glenoid fossa and zygomatic arch. It was causing the ankylosis of the right temporomandibular joint completely. Ankylotic mass

along with tumor was resected, a gap of approximately 1 cm was made, and interposition was done with right temporal fascial flap. An interincisal opening of 36mm was achieved preoperatively. The resected tumor was sent for histopathology, which revealed it to be osteoma of the condyle. On the first postoperative day, the patient was educated and physiotherapy was started. Sugar-free chewing gum was advised in the postoperative period to keep the mandible mobile and to prevent the re-ankylosis. The patient was followed up on the 7th postoperative day when stitches were removed and the mouth opening was checked. It was approximately 34mm, which might be due to pain and swelling on the operated side. The facial nerve was intact postoperatively. Two months later on, she was followed up, and mouth opening was 35mm. She was followed up for three years to see any re-ankylosis or reduction in mouth opening.

## DISCUSSION

In 1935, Jaffe described osteoma of condyle as an osteogenic tumor, benign in nature, found in jaws, which was rarely mentioned in literature before. Lichtenstein elaborated it by defining that it as a “small, oval or roundish tumor-like nidus composed of osteoid and trabeculae of newly formed bone deposited within a substratum of highly vascularized osteogenic connective tissue.”<sup>4, 5</sup>

Condylar Osteoma is seen to be of two types<sup>7</sup>;  
1-Either proliferation of tissues cause replacement of condyle or  
2-Appearing as a pedunculated mass on Condylar head/neck

Osteomas of the condylar head can be misdiagnosed to osteochondromas, osteophytes, or condylar hyperplasia; coronoid process osteoma may be misdiagnosed osteochondromas due to similarity in a pattern. Smaller endosteal osteomas are challenging to diagnose. They are difficult to differentiate from condensing osteitis or idiopathic osteosclerosis.<sup>3</sup>

Usually, osteomas do not appear with any other co-morbidity. However, therein Gardner syndrome, multiple osteomas appear. It is an autosomal dominant disorder, along with multiple osteomas involving facial and long bones mainly; it also presents with epidermoid cysts on the skin, connective tissue tumors, colorectal polyps, which have a very high risk of transforming into malignancy. Supernumerary teeth and malignant thyroid neoplasm is also seen in Gardner Syndrome.

The best treatment for osteomas should be the absolute surgical removal of the base, along with the cortical bone.<sup>8</sup> A tendency to recur is uncommon. It is crucial to carry on regular clinical follow-ups and radiographic examination after surgical excision of the tumor.<sup>9</sup> In the case of large osteomas that have a risk of esthetic deformities are also excised surgically followed by reconstruction. Reconstruction is usually carried out using autogenous bone grafts; however, if the mandible condyle region is affected, prosthetic joints are used for reconstruction.<sup>6</sup>

## CONCLUSION

Osteoma of the condyle is a rare, benign neoplasm that is asymptomatic except for peripheral variant. It causes morphological changes, resulting in deviation of the jaw and reduced

opening of the mouth. Therefore, it should be considered in cases of trismus. Results are favorable when the patient is diagnosed early, and surgical excision is performed, maintaining facial aesthetics. Regular follow up is suggested even though the recurrence rate is very low.

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