Rama Univ. J. Dent. Sci. 2018 June 5(2):12-13 ISSN No. 2394-417X (print), 2394-4188(online)

Facial Asymmetry Caused Due To Osteocondroma of Mandibular Condyle: A Rare Case report

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Abstract

Osteochondroma Of Mandible Is A Rare, Slow Growing, Benign Tumor That Causes Aprogressive Enlargement, Very Rarely Involve Mandibular Condyles Usually Resulting In Facial Asymmetry, TMJ Dysfunction, With Restricted Mouth Opening And Associated With Occlusal Derangement. Pain Is Rarely Associated With This Tumor. Radiographically, There Is Anteromedial Bony/Cartilaginous Outgrowth Of The Tumor Involving The Condylar Head. We Present A Rare Case Of Osteochondroma Of Right Mandibular Condyle In A 44-Year-Old Female Who Reported With Painless Swelling Over TMJ Area And Progressive Limited Mouth Opening. Panoramic Radiograph And Computed Tomography (CT) Was Performed For Better Evaluation Of The Pathological Condition. This Case Report Will Describe the Surgical As well As Radio graphical Aspect Of Osteocondroma.

Keywords: Osteochondroma, Mandibular Condyle, Radical Resection,Condylectomy

Introduction

Osteochondroma is a bony defect having cartilaginous growth potential that usually appearsnear the growth plate at the ends of long bones such as knee, hip, shoulder, and joints. Only about1% of these occurs within the head and neck region[1]. The most commonly occurring sites inthe craniofacial region is the condyle and the coronoid process. Here, we describe a case of osteochondroma arising from the right condylarregion.

Clinical Report

A 44-year-old female presented in our institution, with complaint of shift of jaw towards left side followed by pain and swelling over right preauricular region. She complained of increasing facial asymmetry. She had been having headaches and right joint noises. Her mandible dental midline was deviated by 5 to 6 mm. Her mouth opening was approximately 8mm, and there was a palpable mass of 2.5 cm x 3 cm over the right condyle.

Computed Tomography showed a bony mass on the poster lateral surface of thecondyle extended anteromedially involving the condylar head (Fig 1a and 1b). The diagnosis was made on the basis of radio graphically and clinical Examination with facial deformity and malocclusion was thought to be an osteolytic tumor. The treatment plans were made for radical resection oreither total condylectomy for which temporomandibular joint was accessed using an "Endural approach" (Fig 2) under general anesthesia.

The condyle and tumorwere dissected subperiosteally, and the lesion extended medially and superiorly into the condylarbone involving the condylar head. Atumor of approximately 25mm in length was excised, a longwith the condyle as the lesion involved the condylar head (total condylectomy) (Fig3).

On histologic examination, an outer lining composed of abroad layer of partially loose perio steal collagen tissue was found, attached with small amounts of cartilaginous differentiated tissue. Adjacent cancellous bone with trabeculae of varies ingsizeand cartilaginous an inclusion was visible, and the final diagnosis of osteocondroma was established.

Patient were kepton Intermaxillary fixation (IMF) for 14 days after which the patient were kept on follow-up forth period of 7th day, 14th day,1 month, 3 month and 6 month period, no facial deformity or deranged occlusion was found.

Discussion

Osteochondroma is the most common benign bone tumor. Osteochondroma of condyle are usually situated on the anterome dial surface of the condylar head. The occurrences of the setumors in the condyle are based on the theory of "aberrant foci of epiphyseal cartilage on the surface of the bone" [1,

2].

In association to our case the extension of osteochondroma to poster me dial somehow contradict the viability of associated theory. The histologic criteria for the diagnosis of an osteocondroma include chondrocytes of the cartilaginous cap arranged in clusters in parallel oblong lacunar spaces similarly to those of normal epiphyseal Cartilage. There are various differential diagnoses of osteochondroma of the chondroblastoma. The histologic orientation is suggestive of a benign lesion. Regular bonetrabeculae produced by endochondral ossification are often seen. The exostosis is covered by periosteum that is continuous with that of the adjacent bone. In consideration of the benign excision of the tumor and a restoration of the mandible to near-normal occlusion and facial midline correction.

Traditional treatment of 76.67% [9] reported cases was the radical resection of the tumor and total condylectomy, with or without reconstruction of superiorly repositioned vertical ramus, costal cartilage graft, or iliac bone harvest. We planned radical resection condylectomy as our primary and secondary approach respectively.

Although conservative subtotal condylectomy can keep the shape of the condylesimilar to that of the normal one, the loss of the superficial chondrocytes increased the risk for osteoarthritis. Although worried about the added risk for recurrence, [8] Cottrell proposed to save as much of the condyle as possible and to base the excision on the clinical apparent margin with removal of the cartilage cap. [7] Chenet al reported that patients who had undergone for local resection and that there was no recurrence between condylectomy and non condylectomy in 34patients. In 26 of them, condylecto my was in the patients treated with condylectomy, whereas 2 recurrences were observed among the8major drawbacks of the conservative procedure.

According to the literature review of Vezeau al, surgical approaches varied for lesions, but preauricular entry into the joint, alone or in was also used frequently. Removal was performed by excision without condylectomy in 23.33% of choice [4].

Conclusion

The Current Study Highlights The Fact That, Despite Its Rarity In Mandibular Condoyle, Surgical Resection Is An Effective Treatment Method. The Decision, However, Based upon the Requirement of Hard Tissue to Maintain the Occlusion As well As Esthetic Of patient.

References

[1] Utumi ER, Pedron IG, Perrella A, Zambon CE, Ceccheti MM, CavalcantiMG.

[2] 2. Kumar A, Rastogi S, Modi M, Nijhawan S. Osteochondroma of the mandibularcondyle. Indian J Dent Res 2011;22:616.

[3] 3. Cury SE, Shinohara E, Oliveira R, Miyagusko J, Mitsuda ST, Martins MT, *et al*. Soft Tissueosteochondroma of the articular disc of the temporomandibular joint: A CaseReport.

[4] 4. Park W, Nam W, Park HS, Kim HJ. Intraosseous lesion in mandibular condyleMimicking.

[5] 5. Siar CH, Jalil AA, Ram S, Ng KH. Osteoma of the condyle as the cause of limited Mouthopening: A case report. J Oral Sci 2004; 4:51 3.

[6] 6. Vezeau PJ, Fridrich KL, Vincent SD. Literature review and report of two atypical cases. J OralMaxillofacSurg1995; 53:954–963.

[7] 7. Chen MJ, Yang C, Qiu YT. Local resection of the mass to treat the osteochondromaofthe mandibular condyle: indications and different methods with 38-case series. Head Neck

[8] 8. Cottrell DA. Discussion: use of conservative condylectomy for treatment of osterchondroma of the mandible condyle. J Oral MaxillofacSurg2002;60:268

[9] 9. Vezeau PJ, Fridrich KL, Vincent SD. Literature review and report of two atypical cases .J Oral MaxillofacSurg1995;53:954–963

To cite this article: Facial Asymmetry Caused Due To Osteocondroma of Mandibular Condyle: A Rare Case report, Dr. Shivendra Singh, Dr. Waseem Khan, Dr.Mayank Verma, Rama Univ. J. Dent. Sci. 2018 June; 5(2): 12-13.