JMSCR Vol||05||Issue||10||Page 29662-29664||October 2017

www.jmscr.igmpublication.org
Impact Factor 5.84
Index Copernicus Value: 71.58
ISSN (e)-2347-176x ISSN (p) 2455-0450
crossref DOI: https://dx.doi.org/10.18535/jmscr/v5i10.198

IGM Publication
Journal Of Medical Science And Clinical Research
An Official Publication Of IGM Publication

Bifid Mandibular Condyle Rare Entity: A Study

Authors
Nahida Dar[1], Tabassum Rafiq[2], Wasim Salman[3]
[1]MDS, Oral and Maxillofacial Surgery
[2]BDS
[3]Registrar Anesthesia

Abstract
Bifid Mandibular Condyle as described in this study is very rare case of condylar anatomy, mostpreferably diagnosedon incidental radiographic examination. It is noticed at any age with male dilection of 3:2 ratio. The etiology and pathogenesis of Bifid Mandibular Condyle though remains controversial and it lacks pathognomic clinical features and proper description as only few case are reported so far. Herein, a study of 5 cases of unilateral bifid condyle in Jammu and Kashmir population is reported.
Keywords: *Unilateral, Condyle, Bifid, very rare entity.*

Introduction

Bifid mandibular condyle is very rare condylar anomaly often found incidentally on routine radiographic investigations mainly because it remains either asymptomatic or is masked by symptoms of other condylar abnormalities. The Bifid Mandibular Condyle (BMC) represents a rare developmental anomaly first described in 1941 and only 67 cases have been reported till now[1] also a case of unilateral bifid condyle in Indian population is reported[2]

The presence of bifid mandibular condyle is a rare condition[3-7] most commonly reported as incidental unilateral finding[3,8,10]. more cases have been reported rather identified on autopsy than in clinical setting[6] as mentioned above most of reported cases have been in asymptomatic patients or in association with temporomandibular joint diseases like ankyloses[9,10] our case reports one such BMC case in population of Jammu and Kashmir, India which was identified incidentally on radiographic investigation.

Several factors have been cited as possible causes of BMC, including condylar fracture, developmental anomalies, perinatal trauma, teratogenic embryopathy and surgical condylectomy[11]

Material and Method

The purpose of this article remains to report possibly the very few cases of unilateral bifid condyle in Jammu and Kashmir population and to review the relevant literature. The study was conucted on 100 patients who were taken for tmj pain management by arthrocentesis and out of those 100 patients it was accidentally found that 6 patients had bifid mandibular condyle.

The pain exaggerated on chewing occasionally accompanied with clicking sound. As a part of routine radiographic investigation patient was advised for intra oral and OPG to access the

conditions. The patient's panoramic revealed bigemination of the left condylar process with mid lateral pattern. The patient had no facial asymmetry, no history of trauma or signs that could be associated with any alteration. Mouth opening was 48 mm and left and right laterality of 10 and 12 mm respectively.

Intra oral examination revealed patient had chronic irreversible pulpitis w.r.t 26 and was advised for endodontic care.

Also since the patient recounted occasional discomfort in the left TMJ Clinical examination of the head and neck region revealed clicking sound on mouth opening with no deviation or any abnormal movement.

Result:- Since our sample size is very less, out of 6 patients only 4 patients got relief from pain after arthrocentesis.

Fig 1: orthopantomogram showing the anatomical left bifid anatomical structures of patient.

Fig 2: panoramic view showing left bifid mandibular Condyle

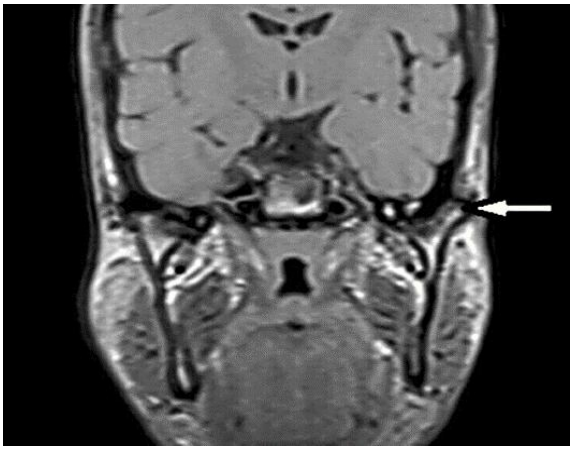

Fig 3: CT image showing Mandibular condyle.

Discussion

Bifid condyle is a rare anomaly with an unclear cause. The study of Szentpetery *et al*, on 1882 cadaveric skulls, found the incidence of BMC to be 0.48%. Loh and Yeo[12] reported 4 cases of bifid mandibular condyle, included one involving an edentulous cadaver. Bilateral bifid condyles are very rare. Shaber [13] (1987) described the first case of bilateral bifid condyles in a patient. Bilateral bifid condyles are very rare. Review of literature in living patients revealed a total no. of 45 cases of bifid condyle, out of which 11 cases are bilateral, giving a ratio of approximately 3:1. In the literature, Cowan and Ferguson[14] (1997) found 36 patients with bifid condyles. Artvinli and Kansu [15] (2003) and Antoniades *et al* (2004) [16] have reported two cases of bifid condyles who had trifid condyle on the other side.

There is no predilection for gender or for any race. They are usually seen to be more common on the left side in unilateral cases by a ratio of 2:1.Most cases (67%) are pain free and no symptoms and are found on routine radiographic examination.[15] However, some have been reported in patients presenting with TMJ symptoms, internal derangement, trauma,[16] or ankylosis.[17,18] This is in addition to the cases of bifid condyles associated with ankylosis.

References

1. Hrdlicka A. Lower jaw: double condyles. Am J Phys Anthropol1941; 28: 75-89.

2. Unilateral, Condyle, Bifid, very rare entity1 smita kamtane, bds, mdsarun subramaniam
3. Hrdlicka A. Lower jaw: double condyles. Am JPhys Anthropol 1941; 28 :75–89
4. Sicher MBA. The temporomandibular joint: a consideration of its probable functional and dysfunctional sequelae and report: condyle- double head—in a living person. Dent Items Interest 1948; 70 :1100
5. 5. Moffett B. The morphogenesis of the mandibular joint. Am J Orthod 1966; 52:401– 415 CrossRef Medline
6. Lysell G, Oberg T. Unilateral doubling of mandibular condyle. Dentomaxillofac Radiol1975; 4:95–98
7. 7. Farmand M. Mandibular condyle head duplication. J Maxillofac Surg 1981; 9:59–60 CrossRef Medline
8. Forman GH, Smith NJD. Bifid mandibular condyle. Oral Surg 1984; 57:371–373
9. Gundlach KKH, Furman A, Beckmann-Van derVen G. The double-headed mandibular condyle. Oral Surg Oral Med Oral Pathol 1987; 64:249–253 CrossRef Medline
10. Szentpetery A, Gabor K, Marcsik A. The problem of the bifid mandibular condyle. J Oral Maxillofac Surg 1990; 48:1254–1257 Medline
11. Stefanou EP, Fanourakis IG, Vlastos K, Katerelou J (1998) Bilateral bifid mandibular condyles. Report of four cases. Dentomaxillofac Radiol 27(3): 186–18
12. Loh FC, Yeo JF. Bifid condyle. Oral Surg Oral Med Oral Pathol Oral Radiol Endod. 1990;69:24–7.
13. Stefanou EP, Fanourakis IG, Vlastos K, Katerelou J. Bilateral bifid mandibular condyles. Report of four cases. Dentomaxillofac Radiol. 1998;27:186–8.
14. Preda L, Baciliero U, Bernasconi G, Sammarchi L, Magenta Biasina A. Bilateral bifid mandibular condyle. Report of a case and review of the literature. Radiol Med. 1999;97:411–4.
15. Antoniades K, Hadjipetrou L, Antoniades V, Paraskevopoulos K, Shaber EP. Bilateral bifid mandibular condyles. Cranio. 1987;5:191–5.
16. McCormick SU, McCormick SA, Graves RW, Pifer RG. Bilateral bifid mandibular condyles. Report of three cases. Oral Surg Oral Med Oral Pathol Oral Radiol Endod. 1989;68:555–7.
17. To EW. Mandibular ankylosis associated with a bifid condyle. J Craniomaxillofac Surg. 1989;17:326–8. [PubMed]
18. Al Kayat A, Bramley P. A modified pre-auricular approach to the temporomandbular joint and malar arch. Br J Oral Surg. 1979;17:91–103. [PubMed]
19. Thomason JM, Yusuf H. Traumatically induced bifid mandibular condyle: Report of two cases. Br Dent J. 1986;161:291–3.