A Rare Case Report of an Unusual Dislocation of Fractured Mandibular Condyle

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Abstract

Keywords

- fracture dislocation
- mandibular condyle
- submandibular region

Several cases have been reported regarding superolateral, posterior, or superior dislocation of mandibular condyle. The anteromedial dislocation of fractured condyle is the most common among all. This article reports an unusual and unique case of dislocated fractured mandibular condyle wherein the fractured left condylar head was dislocated to the left anatomic angle of mandible. We have not found a single such case in the world English literature published till date. The presented case falls in the rarest of the rare category that will add to our previous knowledge about the types and extent of fracture dislocation of mandibular condyle.

Dislocation of the mandibular condyle has been described as the clinical condition when the condyle head is displaced out of the glenoid fossa but still remains within the capsule.¹ The dislocation of the temporomandibular joint represents 3% of all reported dislocated joints.² Several cases have been reported regarding superolateral dislocation, posterior dislocation, or superior dislocation into the middle cranial fossa.^{1–7} The anteromedial dislocation of fractured condyle, owing to the pull of lateral pterygoid muscle, is the most common among all. This article reports an unusual and unique case of fracture dislocation wherein the fractured left condylar head was dislocated to the left anatomic angle of mandible. We have not found a single such case in the world English literature published till date.

Case Report

A 35-year-old female patient, weak built and poorly nourished, reported to the maxillofacial surgery OPD with a chief complaint of difficulty in mouth opening and inability to chew food for the past 7 months. A detailed history revealed that the patient had met with a road traffic accident 7 months prior to presentation. Patient gave history of bleeding from her left ear and a brief episode of loss of consciousness with one episode of vomiting immediately following the accident. Patient was then conservatively managed by a local physician.

The patient was prescribed some medications and no active treatment was provided to the patient, the details of which could not be produced by the patient. A detailed extraoral examination revealed a palpable (20 × 10 mm), tender, mobile, bony-hard swelling at the left anatomic angle of mandible. The temporomandibular joint (TMJ) movement was diminished on left side. Intraoral examination revealed a restricted mouth opening of 20 mm and deranged occlusion (posterior open bite on right side). Routine hemogram and chest X-ray were within normal limits. An orthopantomogram (OPG) revealed fractured left condylar head dislocated to the left anatomic angle region, lying just below the left angle of the mandible with bone resorption at left angle (►Fig. 1). A computed tomographic (CT) scan clearly demonstrated fractured left condylar head lying posteromedially (axial view) and inferomedially (coronal view) to the left angle of mandible (►Figs. 2 and 3).

The patient was posted under general anesthesia for surgical removal of the fractured condylar head through submandibular approach (►Fig. 4) and OPG was repeated on second postoperative day (►Fig. 5). Patient was put on traction elastics (in an attempt to correct the occlusal disharmony) for 3 weeks that resulted in satisfactory occlusion. The patient was asked to resume her regular diet gradually over a period of additional 3 weeks. Meanwhile the patient was instructed to do jaw opening

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Fig. 1 Preoperative orthopantomogram.

Fig. 2 Preoperative CT scan (axial view).

Fig. 3 Preoperative CT scan (coronal view).

Fig. 4 Surgically removed condylar head.

easily understood. The posterior, intracranial, lateral, or superolateral dislocations are mainly dependent on the severity, site, and the direction of impact on mandible.^{2-4,8}

We came across a rare and unique case of fracture dislocation where the fractured left condylar head was dislocated to the left anatomic angle of mandible. Considering all soft-tissue attachments, namely, articular disc, capsular ligament, lateral check ligament, lateral pterygoid muscle, and the distance between the ipsilateral anatomic angle region and the anatomical location of the mandibular condyle, it is very unlikely that a mandibular condyle gets detached from all the attachments and dislocates to such a distance. This was a case of mismanagement of left subcondylar fracture where neither the patient was treated properly nor referred to the specialist for opinion. During the past 7 months, the patient was prescribed medications frequently for any discomfort, the details of which could not be produced by the patient. The patient belongs to the low-socioeconomic strata and lives in a remote area where the medical facilities are very limited and the patient was managing with the soft diet only for the past 7 months.

The probable explanation for such dislocation could be lack of immobilization and functional jaw movements for

Fig. 5 Postoperative orthopantomogram.

exercises to increase the maximum interincisal opening. The maximum interincisal opening after completion of 6 postoperative weeks was 35 mm. The patient is in regular follow-up till the time of submission of this article.

Discussion

Fracture dislocation of the mandibular condyle is a common injury and an anteromedial dislocation is the most common one owing to the pull of the lateral pterygoid muscle.³ Occasionally, dislocation of the intact condyle occurs and its displacement is mostly anterior beyond the articular eminence. Several cases have been published explaining the various other types of dislocations of condyle (posterior, intracranial, lateral, or superolateral directions).¹⁻⁷ Though the posterior, intracranial, lateral, or superolateral dislocations are rare, but the dynamics of these dislocations can be

the past 7 months that could have helped the fractured condylar head to descend down such an extent. The gravitation pull is another factor that can favor this type of dislocation. Yet the above postulates cannot successfully explain the dynamics of such distant dislocation. Probably this is the only type of fracture dislocation of mandibular condyle that follows the direction of gravity. The purpose of this article is to add a new case of fracture dislocation in the world English literature.

Competing Interests

None declared.

Ethical Approval

Not required.

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