

Mouth Opening Limitation and Ankylosis Following Undiagnosed Condylar Fracture: Report of a Case

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Background

Trauma is thought to account for approximately 0.4% of ankylosis cases related to the TMJ complex. Early diagnosis and intervention of cases with condylar fracture can be crucial to minimize the potential affects of late complications including ankyloses such as limitation in opening. In the following, a case with undiagnosed bilateral condylar fracture is presented.

Clinical Case

A 68 year old, Caucasian female presented to a university based TMD Clinic with a chief complaint of limited mouth opening that has been progressively worsening over the past year. History taking revealed a previous traumatic incident to the head due to a fall which was followed several weeks later by a limitation in opening. At the time of injury, she was hospitalized for a week and the medical providers did not diagnose any fractures in the jaw bones or TMJ complex. Based on the clinical examination it was found that maximum opening was 5 mm with slight deviation to the right side upon opening (Fig.1). Palpation of the masticatory muscles elicited bilateral masseter muscle hypertonia without tenderness.



Fig 1: Maximum opening



Fig 2: Panoramic radiograph

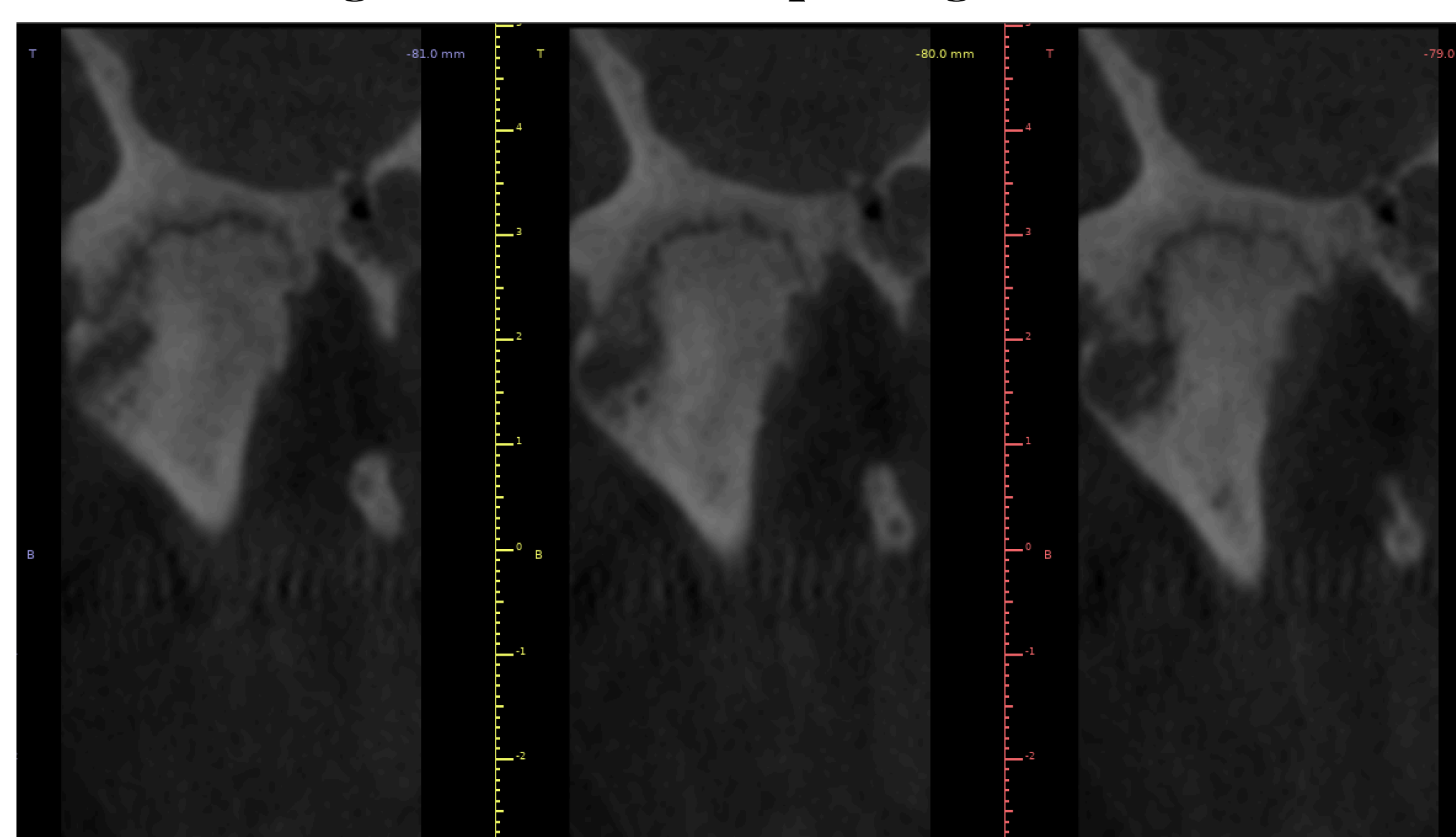


Fig 3: Sagittal view of right condyle

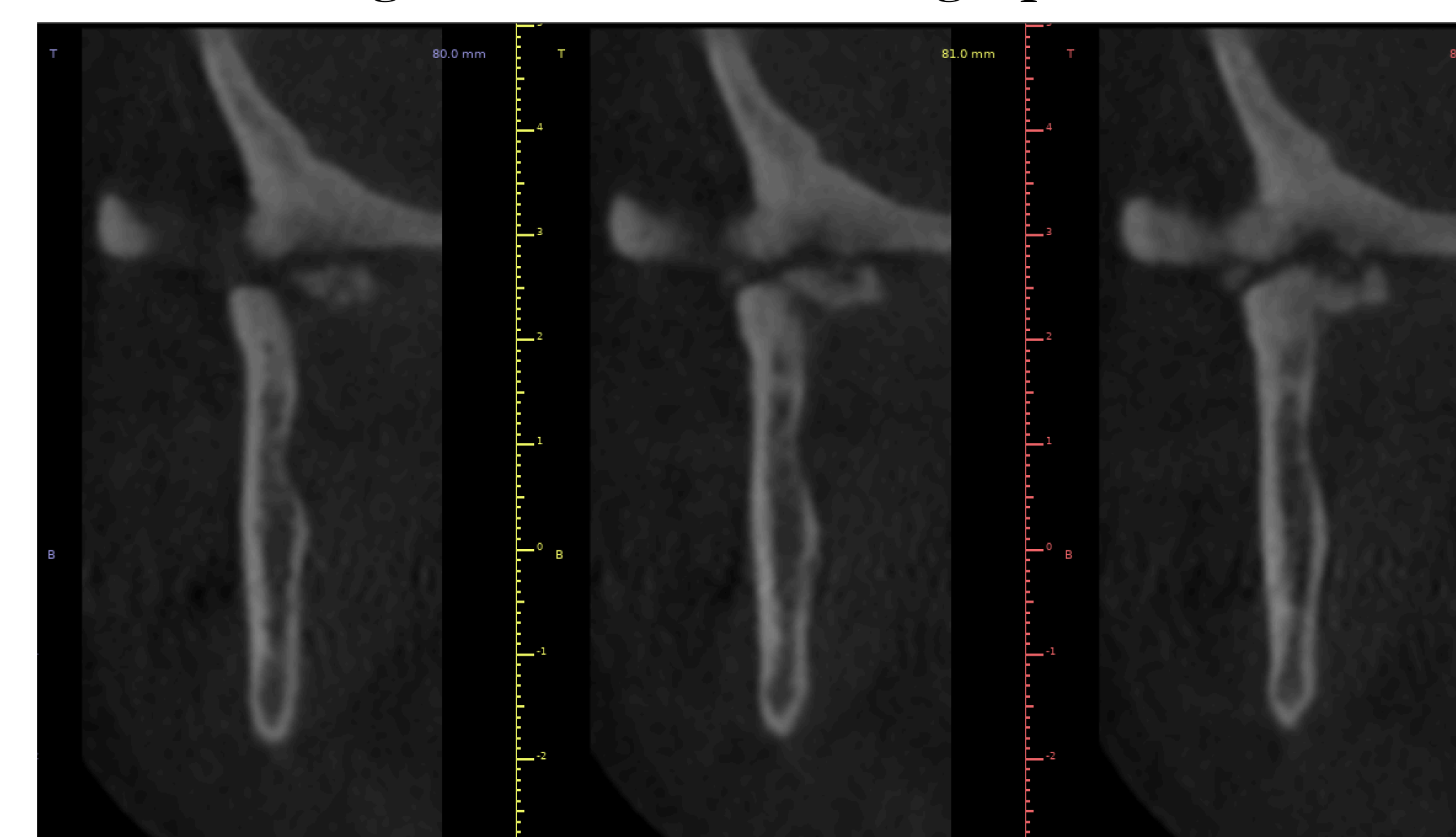


Fig 4: Sagittal view of left condyle

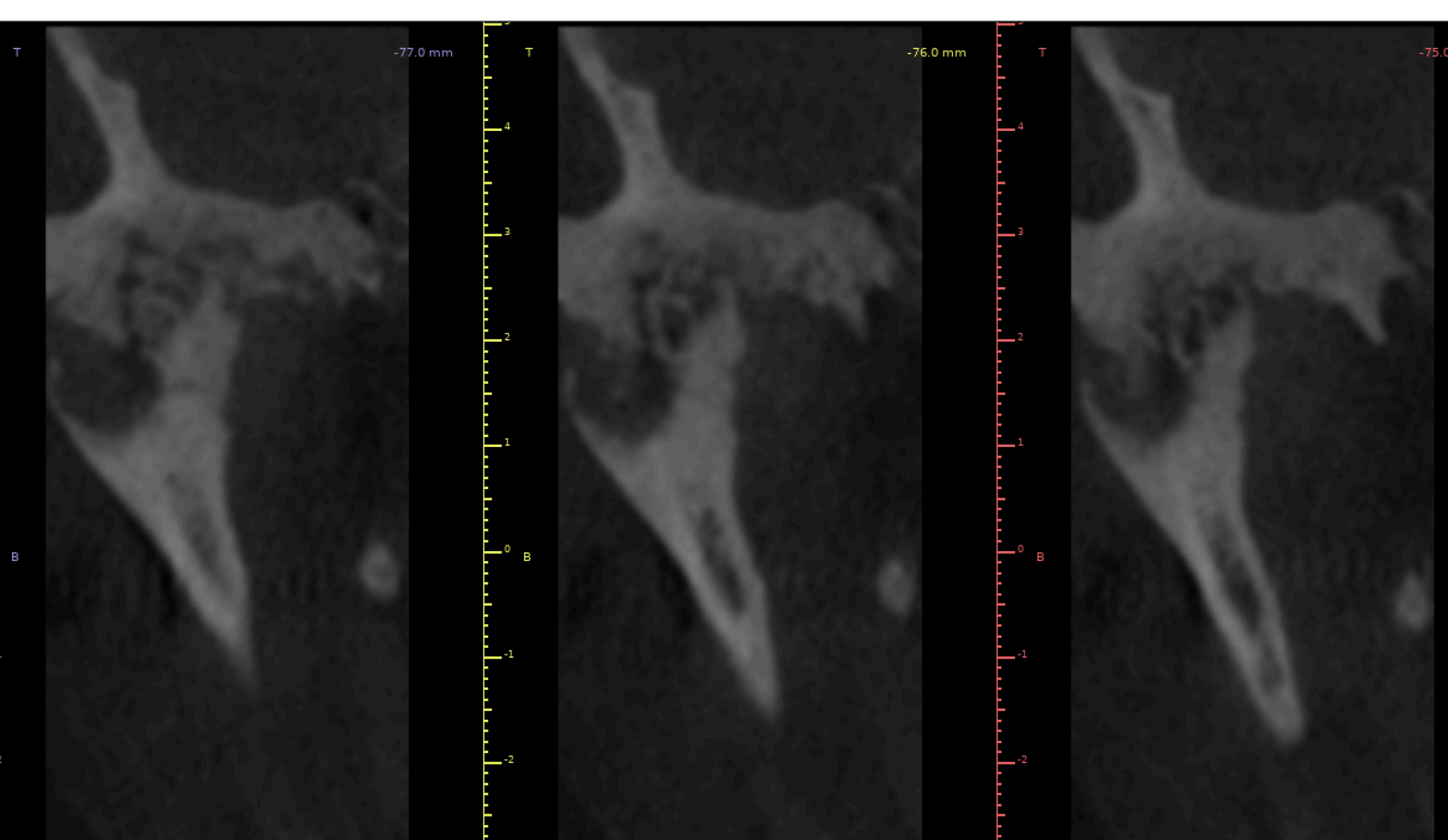


Fig 5: Coronal view of right condyle

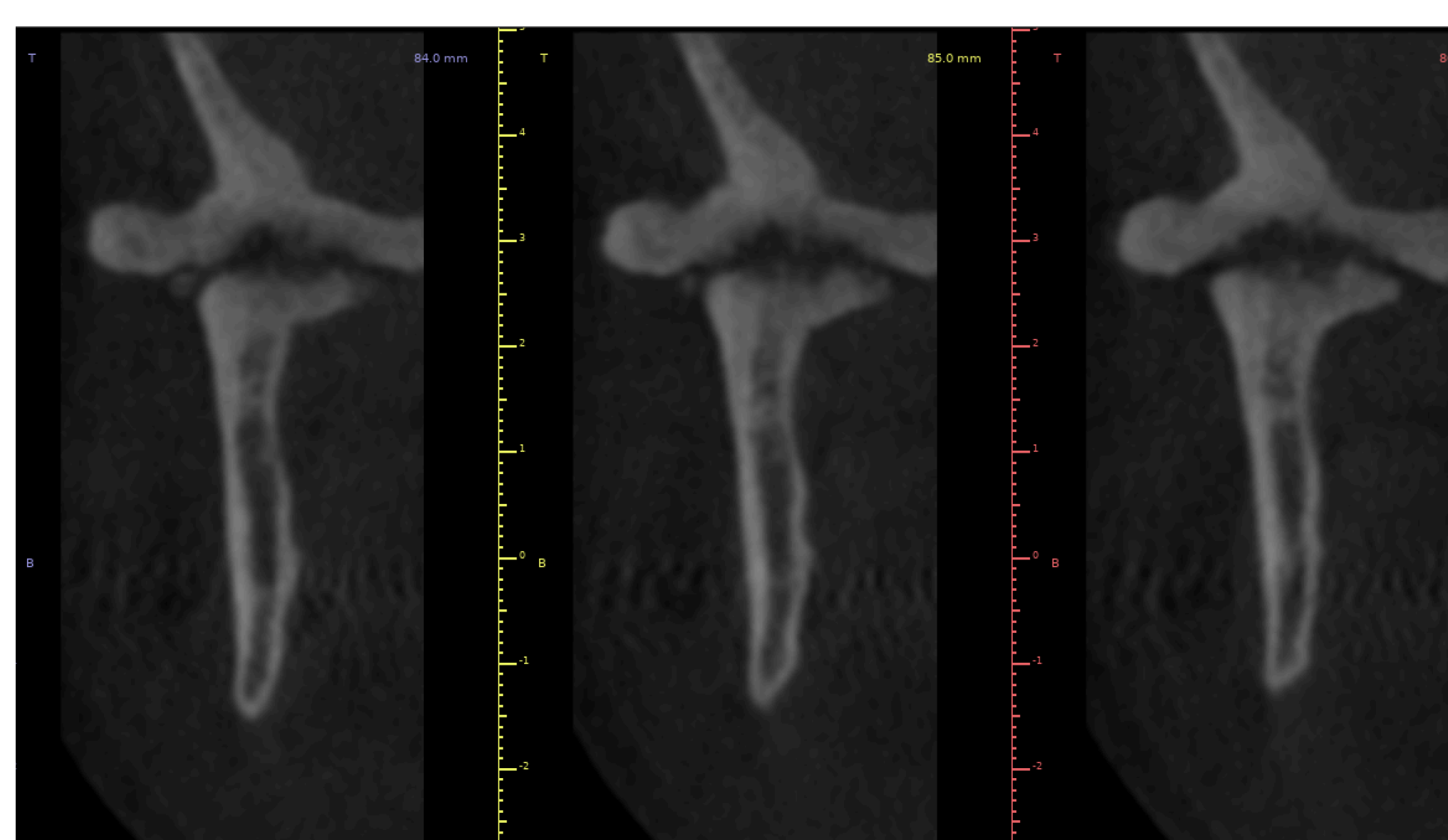


Fig 6: Coronal view of left condyle

A cone beam computed tomography (CBCT) image revealed lack of radiographic joint space in the right TMJ and the left condyle had displaced inferiorly suggesting a possibility of subcondylar fracture (Fig.2 - Fig.6)

CONCLUSIONS

This case highlights the need for a thorough history taking, clinical examination and adjunctive testing such as imaging, when needed following a traumatic event to the head and neck region. This is crucial to avoid undiagnosed TMJ complex injuries which may result in further long-term complications

REFERENCES

Powers DB. Classification of Mandibular Condylar Fractures. Atlas Oral Maxillofac Surg Clin North Am. 2017 Mar;25(1):1-10