

Pathological fracture of the mandible

David M McGoldrick,¹ Caroline McCarthy,² Duncan Sleeman²

¹Department of Maxillofacial Surgery, Cork University Hospital, Cork, Ireland
²Cork University Dental Hospital, Cork, Ireland

Correspondence to
 Dr David M McGoldrick,
 davidmcgoldrick@gmail.com

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DESCRIPTION

A 45-year-old man attended the oral surgery department with swelling and pain 10 days postsurgical removal of two impacted teeth in his left mandible, following a 3-year history of recurrent infection (figure 1). The surgery had been uneventful. The occlusion and continuity of the mandibular border was confirmed postoperatively but only a thin border remained.

Seven days post extraction he had felt 'a crack' in his jaw while eating, despite following a soft diet. He had pain and swelling in the area of the extraction and a palpable step, not previously present, in the mandibular rim. He also had an altered occlusion and hypoanaesthesia of his left mental region. An orthopantomograph indicated a pathological

fracture (figure 2). This was later treated with open reduction and internal fixation via an external approach to avoid the pathology and improve access to bone available for fixation (figures 3 and 4). The patient was also placed in intermaxillary fixation postoperatively to aid healing.

Pathological fracture of the mandible is rare, accounting for between 1% and 2% of fractures in some reports.¹ Common causal factors include surgical procedures, osteonecrosis of the jaw, infection and tumours.^{2,3} Treatment of pathological fractures is difficult as bone is often limited or compromised by the pathology, making fixation difficult.² This case provided a clinical dilemma as recurrent infection had meant the patient requested the initial high-risk surgery. The risk of fracture both



Figure 1 Orthopantomograph displaying impacted teeth in mandibular body.



Figure 3 Intraoperative image of fracture repair with limited bone available.



Figure 2 Orthopantomograph displaying pathological fracture of left body of mandible.



Figure 4 Postoperative orthopantomograph of fracture reduction and plating.



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iatrogenically and postoperatively was apparent, and, unfortunately, occurred in the postoperative period. However, a satisfactory result was ultimately achieved.

Learning points

- ▶ Pathological mandibular fractures are rare.
- ▶ Treatment is often difficult due to the coexisting pathology.
- ▶ The increased risk of fracture when removing lower third molars, which will result in a thin mandibular border, should be outlined to the patient.

Competing interests None declared.

Patient consent Obtained.

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