TOOTH EXTRACTION: True or False- Mandibular First Molar Extraction is the Most Common Reason for Iatrogenic Mandibular Fracture in Dogs

**True!**

The mandibular first molar tooth (M1) was not meant to leave the mandible! The 2 large tooth roots diverge providing effective anchorage in the mandible. Even when affected by severe periodontal disease, the M1 is often non-mobile (Fig. 7). Preoperative intraoral dental radiographs are an invaluable diagnostic aid before extracting any tooth, especially the M1. The preoperative radiograph should include penetration of the tooth roots with controlled force. Application of bone simulating material, and tip apposition (Fig. 7) may help to prevent the M1 from fracturing, even if non-mobile. The crack that can make you shiver (Fig. 9)! The principles for surgical extraction of the M1 include: mucoperiosteal flap elevation, sectioning the tooth into 2 crown-root segments, judicious removal of buccal alveolar bone, elevation of tooth roots with controlled force, application of bone simulating material, and tip apposition (Fig. 10).

**Fig. 7** Dental radiograph showing a non-mobile mandibular first molar (M1). **Fig. 8** Preoperative dental radiograph showing how much bone has been lost secondary to periodontal disease and how much mandibular bone remains to support the M1. **Fig. 9** Postoperative dental radiograph showing the complication of mandibular fracture at the M1 extraction site. **Fig. 10** Photographs showing extraction of a M1 in a dog with a draining tract (arrow) from periapical abscessation (A). The tooth appears relatively healthy with expected plaque and calculus from periodontal disease (B). A potential difficult extraction is managed using a mucoperiosteal flap, crown sectioning (C), and elevation of individual crown/root segments (D) to decrease the possibility of iatrogenic mandibular fracture.