MAXILLARY FOURTH PREMOLAR EXTRACTION

Adapted from “Dental Extractions Made Easier”

Extraction of this tooth requires a gingival flap. Classically, this is done with a full flap with one or two vertical releasing incisions. Full flaps provide good exposure and sufficient tissue for closure. However, this author finds envelope flaps sufficient for cats and small breed dogs.

**Full flaps** are created by making full thickness, slightly divergent incisions at the mesial and distal aspect of the tooth. Care should be taken as to not damage the neighboring teeth. The flap incisions should be carried to a point just apical to the mucogingival junction. It is important to avoid cutting the infraorbital bundle as it exits the foramen above the third premolar. The flap is then gently elevated with a periosteal elevator.

**Envelope flaps** are created by incising the interdental tissue between the tooth and the adjacent teeth. The flap is then carefully elevated along the arcade, ensuring the gingiva over the teeth to be maintained is not damaged.

Following flap creation (a), buccal bone is removed to a point approximately ½ the length of the root. (b) Next, the tooth is sectioned, separating mesial roots from the distal roots by starting at the furcation and cutting coronally. (c) The two mesial roots are then separated by sectioning in the depression between the palatal and buccal roots. (d) Another way to visualize this is to follow the ridge on the mesial aspect of the tooth. (e) A common mistake made during this step is not fully sectioning the tooth. The furcation is fairly deep, and must be fully sectioned in order to avoid root fracture. This can be confirmed by placing an elevator between the crown sections and twisting gently. (f) When fully sectioned, the pieces will move opposite each other easily. Following these steps, extraction proceeds as for single root pieces.

Once the distal and mesiobuccal roots have been extracted, a small amount of furcational bone is removed over the palatine root. (g) Following extraction (and radiographic confirmation), the alveolar bone is smoothed and the area debrided with a coarse diamond bur on a high-speed handpiece. (h) The periosteum is fenestrated with a La Grange scissors (i), and the defect closed with simple interrupted sutures of absorbable material placed 2-3 mm apart. (j)