KEY LEARNING OBJECTIVES

- Understand the basic need for dental radiography
- Appreciate the worth of dental radiography
- Learn how intraoral radiography is performed

MULTIPLE CHOICE QUESTIONS

1. Approximately what proportion of a tooth is invisible to gross examination?
 - (A) 15%
 - (B) 30%
 - (C) 40%
 - (D) 70%
2. In a feline tooth resorption case, which teeth are considered sentinels for the purpose of prognostic probability?
 - (A) 104/404
 - (B) 207/307
 - (C) 307/407
 - (D) 304/404
3. To radiograph the caudal maxillary cheek teeth in cats, which structure creates superimposition and alteration of technique?
 - (A) Ipsilateral temporomandibular joint (TMJ)
 - (B) Contralateral TMJ
 - (C) Contralateral maxillary cheek teeth
 - (D) Ipsilateral zygomatic arch

Common pitfalls in dentistry

Andrew Perry

Treatment of oral pathologies, like that of any body system, can present the clinician with challenges. For many, the received academic education in this area is sparser than in other disciplines. Pitfalls are avoidable and, although complications are possible for any clinical procedure, there is an enormous amount that can be done to mitigate or prevent undesired results.

This lecture is for general practitioners and will provide information to avoid dentistry pitfalls, or at least be able to anticipate them. The introduction will focus on client communication and procedural planning and the thorny issue of informed consent. These interlinked issues are common causes of complaint.

If pathology is linked to teeth with unusual dental anatomy, the result is a significant increase in difficulty of treatment for the clinician. Anomalies such as accessory roots, dilacerated roots, inter-radicular grooves, supernumerary teeth, tooth gemination and missing or impacted teeth and what to do with them will be reviewed in this lecture.

Misuse of instruments may result in serious iatrogenic injury to the operator or patient. Reports of severe arterial haemorrhage, intraocular and even intracranial trauma are reported. These accidents are avoidable with appropriate technique, which will be reviewed.

Iatrogenic root fractures affect all operators during extractions, but the frequency can be decreased by proper appreciation of individual anatomy and application

of appropriate technique. If roots are fractured, extraction may be necessary; planning and method will be reviewed.

Iatrogenic jaw fracture is a recognized risk associated with extraction of certain teeth, both in the animal and human fields. The presence of pre-existing disease, such as tooth resorption or periodontal disease, can increase this risk. Good communication, ideally prior to complications, appreciation of concomitant pathology and sound technique markedly decrease this risk.

Haemorrhage, both intraoperative and postoperative, can be a significant concern for patients undergoing oral surgery. Identification of patients at risk of increased haemorrhage, including breed-specific risks such as enhanced fibrinolysis, is the first step in management of haemorrhage. Use of haemostatic agents, electro/radio/laser cautery and effective closure of surgical wounds offer highly effective methods to controlling bleeding.

Dehiscence of mucosal wounds can occur, often associated with tension of the mucosal flap or limited bone support of the wound margins. Proper flap design and management of the mucoperiosteal flap and alveolar bone to minimize risk of dehiscence will be discussed. A review of appropriate treatment steps in the management of dehiscence wounds will also be presented.

KEY LEARNING OBJECTIVES

- Understand issues of informed consent, client communication and the role of appropriate procedural planning
- How to identify common anatomical discrepancies that may affect treatment
- How to minimize the risk of iatrogenic root fracture and how to respond when it does happen

MULTIPLE CHOICE QUESTIONS

1. What percentage of feline maxillary third premolar teeth have three roots?
(A) 5%
(B) 10%
(C) 15%
(D) 20%
2. What percentage of impacted teeth have been reported to develop into dentigerous cysts?
(A) 3%
(B) 12%
(C) 20%
(D) 50%

3. Why is there an increased risk of iatrogenic mandibular fracture during extraction of the mandibular first molar in small-breed dogs?
(A) An increased prevalence of severe periodontitis may result in bone weakness
(B) The mandibular body height is narrower and the tooth height greater than in larger breeds
(C) The buccal bone thickness overlying the roots is proportionally less than in larger breeds
(D) All of the above

What makes extractions easier?

Norman Johnston

Dental extraction of teeth in practice is a common and often challenging procedure. If hands-on training has been patchy, the result can be a toxic mix of low confidence and skill. Extractions are easier and outcomes improved by better understanding of the problems likely to be faced. Dental radiographs are an integral part of this. Written permission to extract teeth is *essential* before proceeding. The presentation will focus on a number of important areas.

- Root morphology — roots differ in shape, number and location. An understanding of anatomy is important when undertaking extraction surgery
- Instrument selection — selection and maintenance will be described
- Extraction technique — the two main extraction techniques will be illustrated: 'wheel and axle' and 'wedge principle', along with final forceps removal
- Access for extraction — planned extraction techniques are advised, and the sequence will be illustrated with regard to flap design and selection
- Soft tissue access — the aim is to expose and visualize the bone surrounding the roots. Three types of flap are commonly used. Their advantages and disadvantages will be explained
 - Envelope flap — the simplest flap
 - Triangular mucogingival flap — can be an extension of an envelope flap with one vertical releasing incision. It provides better access than an envelope
 - Pedicle mucogingival flap — has two vertical releasing incisions and is a four-cornered flap which can be an extension of a triangular flap. Access is generally best of all flaps

- Important principles of flaps:
 - Suture line supported by bone
 - Releasing incisions made on the line angle of the target or adjacent tooth
 - Length of release incision at least the anticipated length of the root
 - Lift flaps carefully from edges to centre
- Bone access — removal of bone over the root and before closure will be explained with bur types for each part
- Flap closure — flaps are *coronally repositioned* beyond their origin to the palatal/lingual side of the site. The need to place without tension will be emphasized and methods described in addition to suture type
- Postoperative considerations — written instruction should be supplied regarding analgesia, diet, denial of toys and possibly Elizabethan collar use during the healing process. Warning of complications (discharge/suture loss) is important. Two rechecks (2–5 and 7–10 days) are advised to ensure smooth recovery.

KEY LEARNING OBJECTIVES

- Understand oral anatomy and tooth root morphology
- Discuss available instrumentation and how it can improve outcomes
- Describe access via mucogingival flaps and how to plan them

MULTIPLE CHOICE QUESTIONS

1. Which of the following permanent teeth have three roots?
(A) All molars in dogs and cats
(B) All maxillary molars in dogs and cats
(C) All maxillary molars in dogs
(D) All carnassial teeth in dogs

Delivered by BSAVA to:

Guest (guest)

IP: 54.224.187.69

On: Wed, 26 Apr 2023 11:02:58