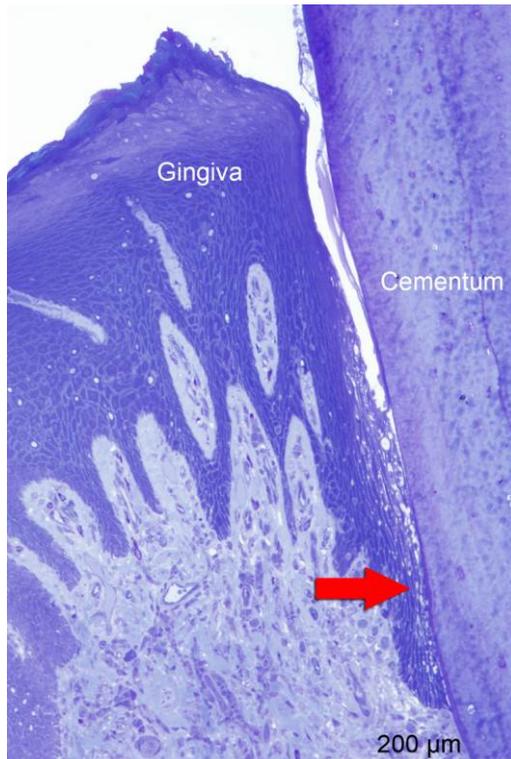


PEA Bench 1



The arrow in the above histological image indicates the attachment zone of the gingiva to dental cementum. Which answer gives the anatomical name for this region?

- a) junctional epithelium
- b) crevicular sulcus
- c) gingival endothelium
- d) sulcular epithelium
- e) gingivodentinal epithelium

**Nanci A (2008) Periodontium. 7<sup>th</sup> edition. In Ten Cate's Oral Histology. Ed Nanci A editor Mosby Elsevier St Louis Miss pp 239-28**



A 21-year-old Warmblood gelding presents with a history of weight loss and reluctance to grasp and bite carrots. Physical examination findings are within normal limits. Inspection of the rostral part of the oral cavity reveals incisor pathology as noted above. Increased mobility of all maxillary and mandibular incisor teeth is evident. Which of the following statements best reflects the clinical findings and treatment plan?

- A. The presence of multiple periodontal fistulae suggests a tentative diagnosis of endodontic disease of all affected incisors.
- B. Increased mobility of all incisors and multiple periodontal fistulae suggest traumatic origin of the disease.
- C. Based on the increased mobility of all incisors, severe gingivitis, extensive gingival recession, and presence of multiple periodontal fistulae, a diagnosis of equine odontoclastic tooth resorption and hypercementosis (EOTRH) is made
- D. A tentative diagnosis of normal senile wear of teeth is made due to the age of the horse
- E. Based on the presence of mobile incisors, periodontal fistulae, and gingivitis/gingival recession, a presumptive diagnosis of advanced periodontal disease is made

Reference:

Staszyk C, Bienert A, Simhofer H, et. al. Equine odontoclastic tooth resorption and hypercementosis. *Vet J* 2008; 178:372-379.

The Head. In: Butler JA, Colles CM, Dyson SJ, Kold SE, Poulos PW. *Clinical Radiology of the Horse*. 3rd ed. Oxford: Wiley Blackwell, 2008; 413-503.

Klugh DO. Equine Periodontal Disease. *Clinical Techniques in Equine Practice*. 2005;4(2):135-147.

## PEB Bench 1



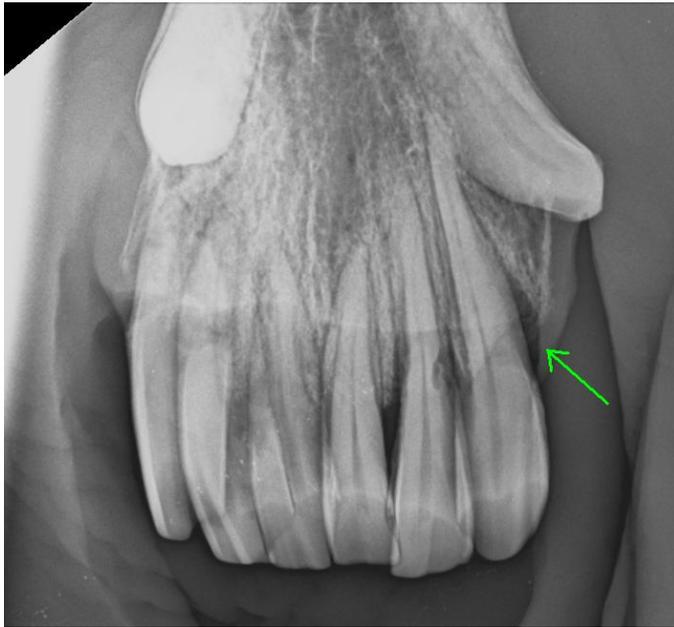
Diastema widening is used as treatment for periodontal disease in the horse. Care must be taken to avoid some potentially detrimental complications. Which statement most accurately describes the potential risk of direct pulp exposure?

- a) Pulp exposure is most likely on the distal (caudal) aspects of cheek teeth especially in younger animals.
- b) Pulp exposure is most likely on the mesial (rostral) aspects of cheek teeth especially in younger animals.
- c) Pulp exposure is most likely on the mesial (rostral) aspects of cheek teeth regardless of the age of the animal.
- d) Pulp exposure is most likely on the distal (caudal) aspects of cheek teeth regardless of the age of the animal.
- e) Pulp exposure is most likely on the distal (caudal) aspects of the second mandibular molar (310, 410) cheek teeth.

### References:

Bettioli N, Dixon PM. An anatomical study to evaluate the risk of pulpar exposure during mechanical widening of equine cheek teeth diastemata and bit seating. *Equine Vet J* 2011;43(2):163-169.

Dixon PM, Barakzai S, Collins N, Yates J. Treatment of equine cheek teeth by mechanical widening of diastemata in 60 horses (2000–2006). *Equine Vet J* 2008 40:22-28.



A 16-year-old Warmblood gelding presented for dental examination. A probing depth of 12mm was found on the distal aspect of tooth 303. An intraoral radiograph was taken to assess the region. Which one of the following statements most accurately describes the radiographic appearance associated with this finding (green arrow)?

- a) Osteomyelitis
- b) An infrabony pocket resulting from vertical bone loss.
- c) A suprabony pocket resulting from horizontal bone loss.
- d) Seventy-five percent periodontal attachment loss
- e) Gingival recession

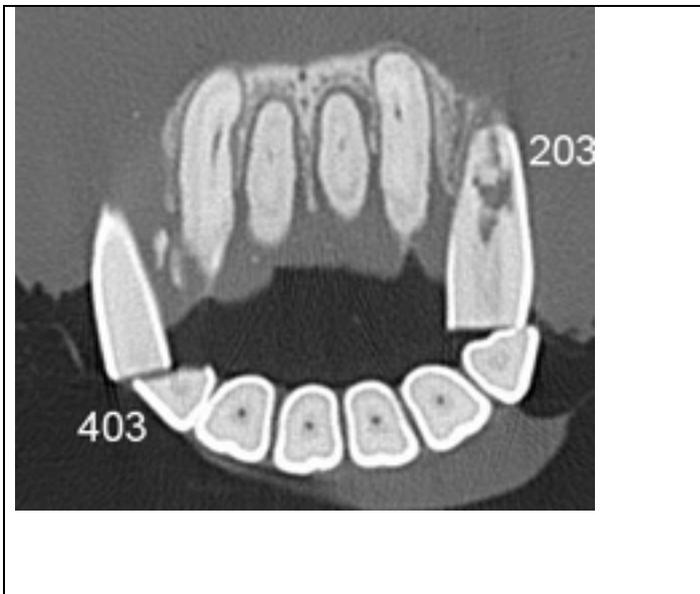
Carranza FA, Camargo PM. The Periodontal Pocket. In: Newman MG, Takei HH, Klokkevold PR, Carranza FA, eds. Carranza's Clinical Periodontology. 11th ed. St Louis: Elsevier Saunders, 2012; 127-139.

Tetradis S, Carranza FA, Fazio RC, Takei HH. Radiographic Aids in the Diagnosis of Periodontal Disease. In: Newman MG, Takei HH, Klokkevold PR, Carranza FA, eds. Carranza's Clinical Periodontology. 11th ed. St Louis: Elsevier Saunders, 2012; 359-369.

PEC Bench 1

Radiographic evaluations of seven types of tooth resorption noted in a population of 224 dogs are discussed in “Radiographic evaluation of the types of tooth resorption in dogs (Peralta S, Verstraete FJ, Kass PH; Am J Vet Res 2010; 71:784-793)”. Below is a computed tomography image of a horse with tooth resorption. Which one of the seven types of tooth resorption noted in this paper best describes the type of tooth resorption noted with tooth 203?

- A. Internal inflammatory resorption
- B. External infectious resorption
- C. Internal immunological resorption
- D. External reparative resorption
- E. Internal infectious resorption



Reference within the stem.

PEA W 1

Which of the following statements best defines the periodontium?

- a) The periodontium comprises the gingiva and periodontal ligament.
- b) The periodontium comprises the alveolar bone, periodontal ligament and cementum.
- c) The periodontium comprises the gingiva, periodontal ligament, cementum and alveolar bone.
- d) The periodontium comprises the periodontal ligament.
- e) The periodontium comprises the gingiva, periodontal ligament and cementum.

Reference

Fiorelli JP, Kao DWK, Kim DM, Uzel NG. Anatomy of the Periodontium. In: Newman MG, Takei HH, Klokkevold PR, Carranza FA, eds. Carranza's Clinical Periodontology. 11th ed. St Louis: Elsevier Saunders, 2012; 12-27.

## PEA W 2

Which of the following statements regarding the histopathology of equine periodontal disease is most correct?

- a) Gingival hypoplasia is a common finding in equine periodontal disease.
- b) Ulcerated gingival epithelium is significantly associated with equine periodontal disease.
- c) Mononuclear gingival inflammatory cells are a feature of more severe stages of equine periodontal disease only.
- d) Intraepithelial neutrophils are seen in both normal and diseased equine gingiva.
- e) Microscopic changes affecting the periodontal ligament are a common finding in equine periodontal disease.

## Reference

Cox A, Dixon PM, Smith S. Histopathological lesions associated with equine periodontal disease. *The Veterinary Journal* 2012;194(3):386-391.

PEB W1

“Diastema widening is an effective treatment of periodontal pocketing in CT diastemata” was the conclusion of Dixon PM, Barakzai S, Collins N et al. in their article: Treatment of equine cheek teeth by mechanical widening of diastemata in 60 horses (2000–2006). *Equine Vet J* 2008; 40:22–28.

Which of the following symptoms was most frequently observed in animals diagnosed with cheek teeth diastemata in this study?

- A. Weight loss
- B. Quidding
- C. Halitosis
- D. Biting disorders
- E. Asymmetry of temporal muscles

(referenced above)

## PEB 2

Attachment loss as a measurement is the best defined by which of the following statements?

- a) Periodontal pocket depth.
- b) Infraboney pocket depth.
- c) Gingiva recession.
- d) Supraboney pocket depth.
- e) Depth of periodontal pocket base from the normal gingival attachment point.

## Reference

Carranza FA, Camargo PM. The Periodontal Pocket. In: Newman MG, Takei HH, Klokkevold PR, Carranza FA, eds. Carranza's Clinical Periodontology. 11th ed. St Louis: Elsevier Saunders, 2012; 127-139.

## PEC W1

Which of the below is the most critical factor to consider when treatment planning for a procedure that requires a mucogingival flap technique.

- A. A surgical site free of plaque, calculus and inflammation.
- B. Adequate blood supply.
- C. Anatomy of the recipient and donor sites.
- D. Stability of the grafted tissue to the recipient site.
- E. Minimal trauma to the surgical site.

Takei H, Azzi RR, Han TJ. Periodontal plastic and esthetic surgery. In: Newman MG, Takei HH, Klokkevold PR, Carranza FA. Carranza's Clinical Periodontology, 10<sup>th</sup> edition. Saunders Elsevier Philadelphia, PA. 2006, 1025-1026.

PEC W2

Which **ONE** of the following statements is **MOST CORRECT** concerning equine periodontal disease?

- a) Aspirin aids healing of a diseased sulcus
- b) Subgingival plaque is the major cause of equine periodontal disease
- c) Doxycycline inhibits collagen destruction
- d) Most equine periodontal disease is caused by a primary bacterial infection
- e) Equine periodontal disease is always irreversible

**Refs: Cox, A., Dixon, .P.M. and Smith ,S. (2012) Histopathological lesions associated with equine periodontal disease The Veterinary Journal 194, 386-391**

**Jolkovsky & Cianco, 2002 cited in Klugh, 2005a**