

Cheetah Focal Palatine Erosion Study Evaluation Protocol

In order to evaluate the oral cavity of a cheetah for the presence of a disorder such as Focal Palatine Erosion, it must be possible to accurately describe subtle changes in normal anatomical structures. This paper proposes one such system of evaluation. This evaluation protocol rates the two different anatomical discrepancies which are always present in cases of FPE on a scale of zero to ten (0 to 10).

The first discrepancy involves changes in the "architectural" shape, size or alignment of the animal's dentition, and is called the "Dental Arch Length Discrepancy Rating System" or "ALD Number". It is a numerical correlation between the degree of severity of the changes in the length of the dental arch, and the effect of these changes on the position of individual teeth. It is presented in detail on page two. As Dental Arch Length changes from what is "normally" expected, the dentition becomes crowded into a smaller space, and individual teeth are then "forced" to align themselves in ways that may become detrimental to the well being of the animal.

The second discrepancy involves specific changes in the character of the specialized oral mucosa of the animal's palate, or the skin on the roof of the mouth, and is called the "Focal Palatine Erosion Rating System" or "FPE Number". It is presented in detail on page three., and describes numerically the progressive stages of tissue destruction found in this disorder.

The attached appendix provides additional information about dentition.

Arch Length Discrepancy Rating System

When:

- ALD = 0 The tooth alignment conforms to the curve of the dental arch. The interdental spacing between adjacent teeth is normal for the given species.

- ALD = 1 The tooth alignment conforms to the dental arch line but adjacent teeth are in contact with one another.

- ALD = 2 The tooth is axially rotated +/- 1 S' with respect to the curve of the arch. The clinical crowns of adjacent teeth may or may not be in contact.

- ALD = 3 The tooth is rotated +/- 30'. (See Fig. 1.2)

- ALD = 4 The tooth is rotated +/- 45'.

- ALD = 6 The tooth is rotated +/- 60".

- ALD = 6 The tooth is rotated +/- 75'.

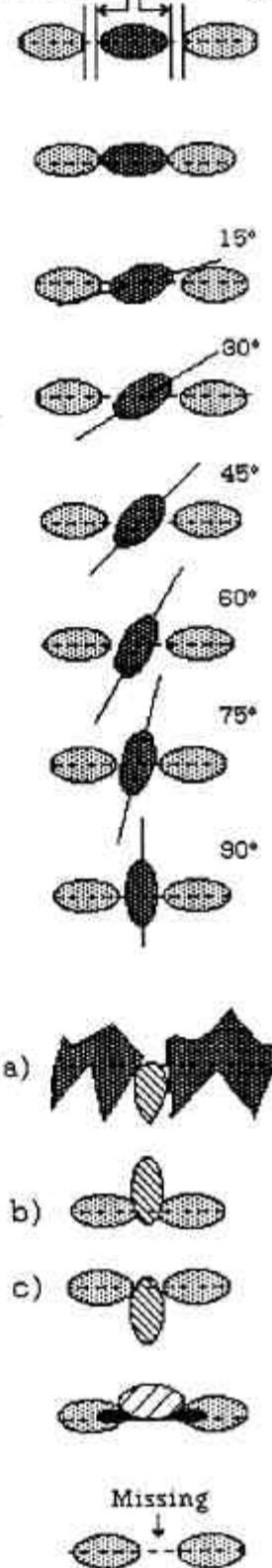
- ALD = 7 The tooth is rotated +/- 90".

- ALD = 8 Zero interdental spacing with tooth impacted:
 - a) within jawbone.
 - b) on facial side.
 - c) on lingual side.

- ALD = 9 The tooth is separated from the gum tissue with fresh bleeding and loss of normal interdental spacing.

- ALD = 10 The tooth is missing entirely and the interdental spacing between the remaining teeth is less than normal.

Normal interdental Spacing



Focal Palatine Erosion Rating System

This system rates numerically the specific changes in the character of the palatal epithelium as the lesion progresses from a small abrasive wound of the palate to a large life threatening oral-nasal fistulous defect with debris impacted into the nasal cavity. Lesions are rated individually and located by describing their relationship to adjacent teeth.

When:

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| FPE = 0 | The palatal epithelium is physiologically normal with uninterrupted pigmentation. |
| FPE = 1 | First sign of a localized loss of the melanin pigmentation of the epithelium. |
| FPE = 2 | An abrasive wound of the surface layers of the palatal epithelium limited in depth. |
| FPE = 3 | Localized puncture wound of the palatal epithelium. |
| FPE = 4 | Localized puncture wound through the epithelium including the periostium of the underlying bone. |
| FPE = 5 | Open bleeding wound through the palatal epithelium with underlying bone exposed. |
| FPE = 6 | Inflamed hemorrhagic bony defect with debris impacted into the wound. |
| FPE = 7 | Localized bony defect with considerable debris and expanding detachment of the periostium. |
| FPE = 8 | Small oral-nasal fistulous defect with considerable debris in the nasal cavity. |
| FPE = 9 | Oral-nasal fistulous defect with considerable debris in the nasal cavity and preliminary signs of systemic impact. |
| FPE = 10 | Large oral-nasal fistulous defect with noma. |