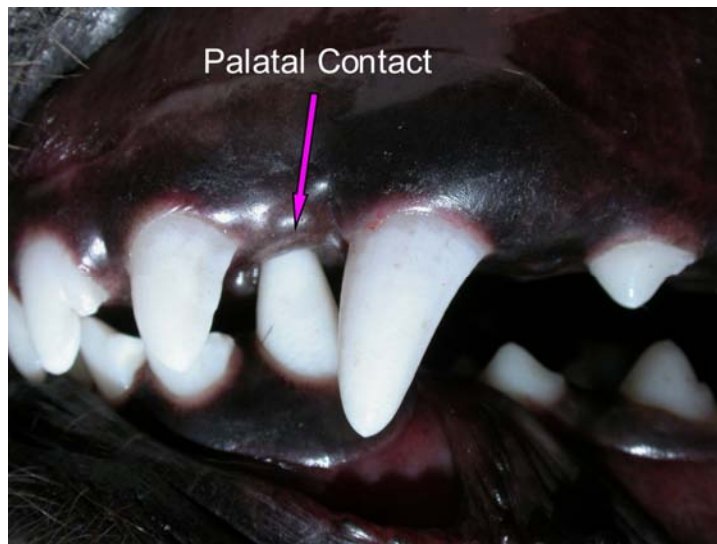


CASE OF THE MONTH (July 2007)

Signalment and History:

A six month old female Standard Poodle presented with a Class II malocclusion with bilateral base narrow mandibular canine teeth contacting the hard palate, resulting in palatal trauma.



Procedure: There are several options available when correcting base narrow canine teeth. In this case we elected to create an incline plane in the roof of the patient's mouth to orthodontically move these teeth into a functional, non-traumatic occlusion. After placing the patient under general anesthesia we took intraoral radiographs to be sure there were no periodontal issues that would preclude orthodontic treatment. Next a composite-acrylic product by the name of Maxitemp was placed on the maxillary second and third incisors and canine teeth on both sides. After this material had hardened, we extubated the patient, closed the mouth, and marked the points of contact of the mandibular canine teeth on the Maxitemp. Next we used a cylindrical diamond bur to create grooves from the points of contact to guide the lower canines into the desired position. Once these grooves are correctly positioned, they will place an orthodontic force upon the lower canines each time the patient closes her mouth, and over a period of several weeks, the canines will move into a functional, non-traumatic position. After a treatment period of eight weeks, we again placed the patient under general anesthesia and removed the orthodontic device. At this time the patient had achieved a functional occlusion.







Discussion: Class II malocclusion is a length discrepancy between the maxilla and the mandibles resulting in the maxilla being relatively too long for the mandibles. This condition is genetic in origin. The owner needs to be informed that such a patient is not a good candidate for breeding or showing. It is a good idea to have the owner sign an agreement to have the patient neutered or spayed before this condition is treated. Base narrow mandibular canine teeth often accompany a Class II malocclusion. This situation will result in palatal trauma, often severe, leading to considerable pain and possible infection of the palatal soft and hard tissues.

Patients normally tolerate the presence of an incline plane amazingly well. It is sometimes necessary to make an adjustment of the device at some point during the treatment period.

If the jaw length discrepancy between the maxilla and the mandibles is not too severe, orthodontic correction is the preferred method of treatment. Occasionally the mandibular canines will line up directly on the palatal side of the maxillary canines. In this situation orthodontic movement is not possible because lateral movement of the mandibular canines would cause them to collide with the maxillary canines. In this scenario,

crown amputation with direct pulp capping is the treatment of choice. This procedure will be discussed in a subsequent Case of the Month. In some instances the jaw length discrepancy is so severe that the mandibular canines will be located distal or caudal to the maxillary canine teeth. In this situation the mandibular canines may be orthodontically moved laterally to avoid palatal contact. Even though the resulting occlusion is far from normal, it is certainly functional. This type of case will also be covered in a future Case of the Month.

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