



Feline Odontoclastic Resorptive Lesions (FORL's)

What are FORL's?

FORL's are a condition where the roots of the teeth are eroded away over time. Cells called odontoclasts normally erode away the roots of deciduous (baby) teeth during development. In cats affected by FORL's, these cells function abnormally and begin to erode away the roots of the adult teeth. Eventually the lesion invades into the pulp cavity of the tooth, causing the root and crown (section of tooth showing) to separate, resulting in the crown falling off.

Which animals are affected?

Roughly 28% to 68% of mature cats have FORL's. It is rarely diagnosed in cats under the age of 2, with most being around 4-6 years old. Asian short-haired, Siamese, Persian and Abyssinian breeds are predisposed to this condition. There is no sex predilection.

Why does it happen?

Unfortunately the exact cause is unknown. Plaque accumulation is thought to play a role in the disease; however several studies have shown no cause and effect relationship between the two. Local pH changes may play a role in the disease as it does in humans. Studies have shown resorption to increase in acidic conditions.

Additionally, an oral pathogenic bacteria (*Actinomyces*) has been found to be associated with resorptive lesions.

What are the signs of FORL's?

Most cats show no signs at all of having an FORL even though they are one of the most painful lesions a cat can have! Some have increased saliva secretion, blood coming from the lesion site, difficulty chewing, hissing after chewing or picking up and then dropping their food (especially hard food). Additionally, some cats can have a change in behaviour, either being aggressive or hiding. On physical examination granulation tissue/gingival hyperplasia is noted (red thickening of the gum). When lesions progress a pink discolouration to the tooth can be seen, of which is granulation tissue within the tooth. Additionally it may be noted that one side of the mouth has more tartar accumulation than the other, due to discomfort and avoiding chewing on the affected side.

How do we diagnose FORL's?

A suspect lesion can be pressed with an instrument such as a cotton tip, this usually causes pain and jaw spasms. Under a general anaesthetic the tooth with a suspect FORL is x-rayed for confirmation. The entire tooth is assessed for signs of resorption, and the amount graded on a scale (1 to 5).

What is the treatment?

Surgical removal of affected teeth is the only effective treatment available. Extraction can be quite difficult depending on how much of the root has already been eroded away.

These roots are often quite friable and care needs to be taken in order not to break them during removal. If the periodontal ligament has been destroyed then the crown of the tooth is amputated and the root left to resolve on its own. Eventually bone will replace where the root(s) of the tooth used to be present.