

# Feline Maloclusion - Mandibular Retrognathism: Case Report

## Rita de Cássia Silva da Costa\*, Maria Fernanda Martins Duval and Maria Eduarda Vilela da Silva

Radiovet - Centro de Radiologia Veterinária, Av. das Américas, Barra da Tijuca, Rio de Janeiro, Brazil

\*Corresponding Author: Rita de Cássia Silva da Costa, Radiovet - Centro de Radiologia Veterinária, Av. das Américas, Barra da Tijuca, Rio de Janeiro, Brazil.

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#### **Abstract**

The clinical case presented reports the adjustment of nutritional management for a feline patient with mandibular retrognathism. The 4-year-old feline patient was very underweight and had a history of difficulty feeding on a dry diet. Class II malocclusion with negative discrepancy and deficiencies in the transverse, sagittal and vertical senses were observed. Caloric protein deficiency is one of the serious problems that affects the feline patient's retrognathia resulting in decreased physical fitness, less resistance to diseases, increased susceptibility to infectious processes among others; being the nutritional management fundamental for patients with this type of physical limitation. Caloric protein deficiency is one of the serious problems that affects the feline retrognathia resulting in decreased physical fitness, less resistance to diseases, increased susceptibility to infectious processes among others; being the nutritional management fundamental for patients with this physical limitation.

Keywords: Malocclusion; Feline; Nutritional Management

#### Introduction

The malocclusions are deviations from the normality of the dental arch, the facial skeleton, or both. Although rare in felines this important malocclusion of skeletal origin occurs due to the disproportionate development of the mandible in relation to the maxilla, altering the normal occlusion and compromising the quality of life of the feline patient.

This malocclusion may be a result of traumatic, nutritional, genetic (more frequent in cats) factors presenting basic bone dysplasia or movement of the upper dental arch forward or by the combination of skeletal and dental factors. It can cause different degrees of impairment of the various functions of the stomatognathic system [1-4].

Unfortunately, the orthogoathic surgery performed in humans as a therapeutic protocol for this type of deformity is not an alternative in veterinary dentistry.

The relationship between hard and soft orofacial tissues, as well as the need to exert stomatognathic functions for survival, increase the demands of the extrinsic and intrinsic muscles of mastication to allow the performance of these functions due to the retrognathic mandibular profile and the overbite accentuated condition that can put risk of animal life [1,2].

#### **Objective of the Study**

Report the case of malocclusion type II - mandibular retrognathism in a cat and demonstrate the importance of the orofacial abnormalities and its feeding management to the feline patient.

# **Case Report**

A four years old castrated feline was evaluated at the Radiovet - Veterinary Radiology Center, Rio de Janeiro - RJ, Brazil presenting low weight and development below that expected for age, progressive weight loss. The oral exam revealed dento-skeletal deformity of

the mandibular class II (retrognathism) with the crown of the tooth 404 occluding in the palatine mucosa behind the tooth 104 and 104, 204 and 304 with complete crown fracture. A wet hypercaloric diet (Recovery Royal Canin®) was indicated and requested a radiographic evaluation of the skull in the ventrodorsal and laterolateral projection for evaluation and clinical-stomatologic diagnosis and planning of crown amputation followed by endodontic treatment with coronary seal of the tooth 404.

#### **Results and Discussion**

The radiographic examination confirmed mandibular type II malocclusion with impairment of stomatognathic functions, low weight (compatible with dento-skeletal condition since weight loss is associated with cases of malocclusion) and mild dehydration.

The radiographic exam revealed mandibular retrognathism and malocclusion. Through nutritional management in one week corrected dehydration and body weight. Clinical crown amputation followed by endodontic treatment of the 104, 204, 404 tooth were performed for occlusal adjustment. Even with supportive therapy with Royal Canin® Recovery till the occlusal adjustment procedure and then Royal Canin® cat sterilized wet food. The malocclusion can progress lethally, requiring constant preventive clinical surveillance of the oral cavity of felines. After the surgical treatment.

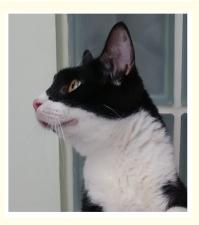


Figure 1: Bento's perfil; mandibular retrognathism.

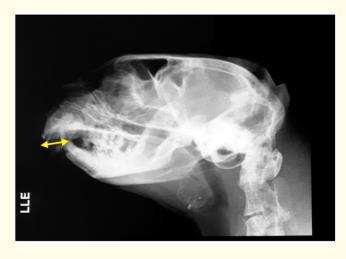
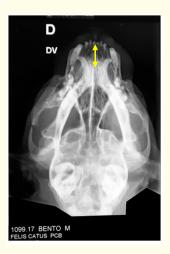


Figure 2: Radiography L/L: mandibular retrognathism and overbite (yellow arrow).



*Figure 3:* Radiography D/V: mandibular retrognathism and overjet (yellow arrow).



Figure 4: V/D view: mandibular retrognathism. Teeth 104, 204, 304 endodontic access (yellow arrow).

# **Conclusion**

Cases of malocclusion in cats can progress lethally and there is a need for the early diagnosis and a constant preventive clinical surveillance of the oral and quality of life and mainly nutritional support.

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