Teeth rasping in a pet rabbit

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Abstract
A 6 months old rabbit of non-discript breed was presented to the walk in clinic of PETS CINIC & Emergency Center for loss in condition and abnormal incisor. Radiographs were taken to judge the abnormality in dentition and surgically rasping was performed.

Keywords: Rabbit, dentition, incisors, molars

Introduction
The teeth of rabbits and rodents are divided into two separate functional units, the incisors and the cheek teeth that are separated by a long gap, the diastema. Rabbit and rodent incisors are strongly curved elongated teeth. Normal chewing activity, combined with active tooth-on-tooth grinding, produces the typical chisel-shaped wear pattern. The cheek teeth are adapted to crushing or grinding the food. Rabbits use a largely vertical incisor action, the tips of the lower teeth sliding along the occlusal surface of the maxillary first incisors. Once the food is between the cheek teeth, the jaw is moved with a wide lateral chewing action. Rabbits are highly susceptible to anything that reduces chewing efficiency and food intake. As a result, one of the earliest indicators of a dental problem is weight loss.

Clinical history and Observation
A less than a year old rabbit, weighing 850gms was presented for loss in condition and abnormal incisors. On observation rabbit’s temperature was normal 101.5oF with pale mucous membrane and dull coat, musculature was reduced. Proximal incisors were longer than normal and upper and lower incisors cross each other beyond the jaw line. Lateral x-ray was done and observed that premolars and molars of both the jaws coincide with each other with spikes on one side.

Treatment and Discussion
Dental correction was decided with the consent of owner. The rabbit was sedated by midazolam 0.5mg/kg and anesthetized by isoflurane 3%, open system of delivery of gas anesthesia. Incisors were reduced to 0.5cm each by using diamond disc bur. Pre-molars and molars table surface was rasped by using diamond bur, to such a extent that while closing of mouth the surfaces do not coincide, spikes are even. Post-operative care include analgesic meloxicam (Melonex, Intas) 0.2mg/kg sc and antibiotic 3 day acting enrofloxacin (Fortivir, Virbac) 5mg/kg sc.

Malocclusion most commonly results from pathologic tooth elongation. In adults, malocclusion is accompanied by acquired tooth elongation. When rabbits are fed high-energy and compounded foods, the exposed crowns elongate because they are not worn adequately. The combination of incomplete wear and the consistent curvature of the cheek teeth results in “spike” formation on the edges of the occlusal surfaces. As the teeth elongate, they come into contact with their counterparts in the opposing jaw, forcing the mouth open at rest until resting jaw tone prevents further eruption. While correcting introduce a natural diet to promote normal chewing the food must be in its natural form to encourage a normal chewing pattern and promote tooth wear.
Fig 1: Before rasping

Fig 2: after rasping

Reference