

DENTAL DISEASE OF DOMESTIC FERRETS IN LATVIA

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Objectives of the study

Ferrets are very common pets in the world. If some time ago it were animals from fur farms, now we have good breeders around the world (Church, 2007). When we are talking about ferrets it is very important to understand, which group of ferrets will be examined for these research. There are some groups of domesticated ferrets in the world: working ferrets (hunting), fur animals (in farms – we hope that these group will diminish maximally everywhere), laboratory animals and companion animals (pet class)(Cathy, 2008., Kirk, et al., 2014). Ferrets have many common dental conditions, as have dogs and cats (Fisher, et al., 1994). All dental conditions in companion ferrets was not studied enough till now. Our research is unique for Latvia, and all received data will be good material for all small mammal clinicians in the world.

Material and Methods

In our research we are working with pet animals. We have breeders in Latvia, which are using ferrets, who progenitors are wild European polecats and farm ferrets for selection. There are two types of companion ferrets in Latvia – with known lineage, good health and body condition; and farm ferrets descendants with bad health and body conditions, which are predisposed to pathologies.

The present study is including information about 62 ferrets, dental record forms of mouth examination results, bacterial samples of different origins. Oral examination was performed on 62 ferrets. For data recording was used special dental record form, for each animal. All animals are pets from individual owners and breeders (animals are kept as pets, the maximal count of ferrets in one ferrety 13). Age of examined domestic ferrets was from 34 days old till seven years old.

The diet of ferrets was different, mostly they were fed with kibble diet and some fresh or dried meat in addition. There are mixed diets are popular in Latvia, standard feeding include kibble diet (50-90 %), meat (poultry, rabbit meat, frozen mice, 1 day old frozen chicks 10-50%) and additives (vitamin pastes, quail eggs). Some ferrets were eating BARF diet. Kittens were eating mother's milk and meat (poultry and mice). From the ferrets were collected bacterial samples from mouth cavity, duodenum and rectum.

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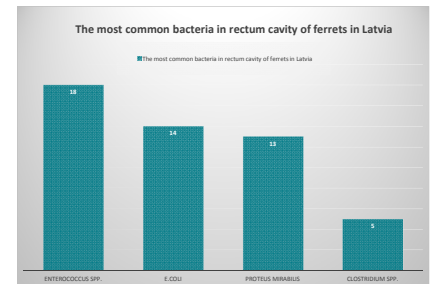
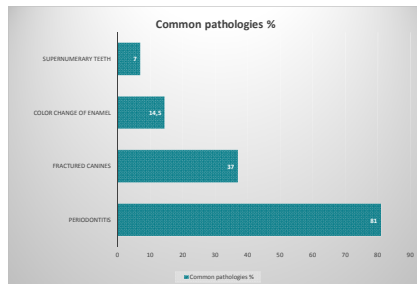
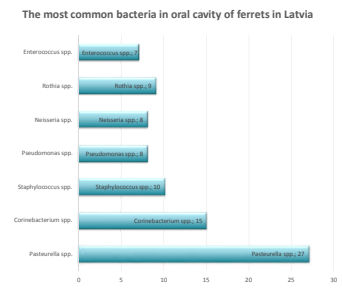
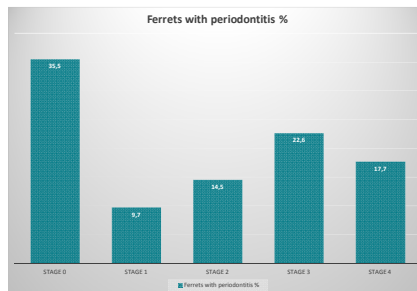
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Results

- The most common dental pathology of domestic ferrets is periodontitis – 81%. The ferrets of any age group can have signs of periodontitis. It could be some predisposition to develop calculus and gingivitis from young age.
- All examined ferrets were divided into 5 categories of periodontitis.
- Others pathologies were – fractured canines, color change of enamel and supernumerary teeth - respectively 37%, 14,5% and 7%.
- The most common bacteria that present in ferret mouth were *Pasteurella spp.* (27 cases), *Corinebacterium spp.* (15 cases), *Staphylococcus spp.* (10 cases) and *Rothia spp.* (9 cases).
- Despite opinion that duodenal cavity is always sterile, were founded some bacteria – *E.coli* (5 cases), *Enterococcus spp.* (3 cases) and *Staphylococcus spp.* (2 cases), also *Aeromonas spp.*, *Citrobacter spp.* and *Pasteurella spp.*
- The most common bacteria in rectum cavity were – *Enterococcus spp.* (19 cases), *E.coli* (14 cases), *Proteus spp.* (13 cases) and *Clostridium spp.* (5 cases)



The most common dental pathologies of ferrets



Fractured canines in ferret



Supernumerary teeth in ferret



Color change of enamel in ferret

Stages of periodontitis in ferrets



Stage 0



Stage 1



Stage 2



Stage 3



Stage 4

Conclusion

- The most common dental pathology of domestic ferrets in Latvia is periodontitis -81%.
- The most common bacteria that present in ferret oral cavity were *Pasteurella spp.* – 44% and *Corinebacterium spp.* – 24%.
- In duodenal and rectum cavity were most commonly diagnosed the *Enterococcus spp.* – respectively 12% and 69%

Research is in progress