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Case Report

Rhinelander Rabbit Otohematoma

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Abstract

In this article about a case report it is going to be discussed about a rare health problem in rabbit, bilateral otohematoma. Rhinelander rabbit, a rabbit species that has straight ears, unlike lop-eared rabbits that have droopy ears, was submitted to veterinary clinic after it has been treated in other clinic for couple of days with no signs of improvement. Rabbit was treated for otitis externa with topical and systemic drugs and for surgical treatment, toggle ear procedure was performed on both of his ears to treat otohematoma. To the autho

knowledge this is the first reported case of bilateral otohematoma in rabbits.

Keywords: *Rhinelander Rabbit; Otohematoma; Toggle Ear Procedure*

Introduction

In this case report, we report about a three year old Rhinelander rabbit called Debeli (in translation from Bosnian, Fat boy). He was brought in for a clinical exam because, as his owners said, his ears got swollen quickly in couple of days. Debeli is a free roam rabbit on the large land of his owners, where he eats hay and local vegetation. No vaccination status nor history of his former conditions were provided. No scratching of his ears was noticed by them, his appetite was strong and took water regularly, but they had no further information about urination and bowel movements. Owners took the patient to an other veterinary clinic where they evacuated non-named liquid from his ears, but both ears filled up quickly with liquid in matter of hours, and his ears fell down from the weight. That non-named liquid was evacuated throughout next couple of days but no further medication and treatments were given. After that, the patient was brought in to the veterinary clinic "Ketti" for further examination.

The Case Description/Summary

On the day of his first clinical exam, rabbits body weight was 6 kilograms. Body temperature was 40.6 degrees Celsius (febrile state), he was attached to Eickemeyer LIFEVET monitoring and anaesthesia monitor where tachycardia and tachypnea were seen. Heart rate was

336 per minute with respiratory rate over 90. Gut movement was preserved during auscultation, there were no pathological sounds and murmurs present during heart, lung and trachea auscultation. Mental status preserved, body score condition 3/5 and in line with age and breed. Submandibular lymph nodes were enlarged and patient showed signs of pain when palpated. Other peripheral lymph nodes were without change. Oral and eye mucosa was slightly pale, with a large quantity of white to yellow mucus in both of his eyes. Teeth and gums are in good shape without deformation or inflammation. Skin and fur were dirty and in bad condition. Shape and texture of his feces was also in good state. During the ear examination with otoscope and adspection, patient showed signs of aggression from severe pain and discomfort. Ear mucosa was hyperemic and swollen, ears were warm to palpate with large quantities of puss coming out of his ear canals bilaterally. Both of his ears were enlarged and soft in central part. Fine needle aspirate was taken from both of his ear otohematomas and large number of red blood cells and heterophils, with small amount of monocytes and macrophages were found during microscopical exam. After consulting with the owners, the patient was submitted to our clinic for further diagnostic and treatment. During his stay in the clinic, patient showed signs of pruritus and intense scratching on both of his ears. Swab of his right ear was taken and sent to Serbian veterinary laboratory called "VetLab" where dual natured ear infection was confirmed with the presence of *Proteus* spp and *Malassezia pachydermatis* (++). Isolated *Proteus* is sensitive to 7 from 24 antibiotics that were in antibiogram (Amoxiclav, gentamicin, neomycin, enrofloxacin, ciprofloxacin, azithromycin and marbofloxacin). Blood work was done on Idexx ProCyte One, and the results showed low RBC (4.21 M/µL), Haematocrit (19.1%), haemoglobin (7.7 g/dL) and heterophils (37.4%) with elevated monocytes (10.3%) and eosinophils (19.8%). Heterophile to lymphocyte ratio also showed strong inflammation with ratio being 2:1 [2]. Drugs of choice for his therapy were 5% Enroxil (Enrofloxacin 50 ml/ml, dose 10 mg/kg), Meloxidolor 5 mg/ml (meloxicam, dose 0.5 mg/kg) for systemic treatment with subcutaneous route, and topical ear treatment with Bars forte (Miconazole nitrate 20 mg/ml and enrofloxacin 3 mg/ml) with 3 drops per treatment, 2 times a day with detailed ear cleaning beforehand with chlorhexidine [1]. First three days, patient was lightly sedated with medetomidine at 0.60 µml/kg for ear cleaning and topical treatment [1]. As a treatment for both otohematomas, surgical procedure to stop the intense bleeding from inner capillaries was decided, as blood evacuation with syringe and needle showed no progress. After ten days of topical and systemic therapy, operation of repairing both ear hematomas with toggle ear fixation as a procedure of choice (Photographs of the ears and the procedure are below this paragraph). During his preoperative clinical exam, slight lung crepitations were noticed during auscultation. Patient was stable, body weight 6 kg, in afebrile state with body temperature of 39.5 degrees Celsius, respiratory rate, heart rate were in physiological state with heart rate 220 beats per minute and respiratory rate 60 breaths per minute. Submandibular lymph nodes were still enlarged [1]. Anesthesia was mixture of Ketamine/Medetomidine/Butorphanol: 15 mg/kg 0.2 mg/kg and 0.1 mg/kg SC, reversed by Atipamezole at 5x medetomidine dose in mg. As analgesia, Meloxidolor 5 mg/ml was used (meloxicam, dose 0.5 mg/kg). After the surgical procedure with toggle ear fixation, patient was treated with Enroxil (Enrofloxacin 50 mg/kg, dose 10 mg/kg) for 14 days and NSAID drug of choice (meloxicam, dose 0.5 mg/kg). Also, during the 14 days of postoperative care, ears were regularly cleaned with chlorhexidine, and topically treated with Bars forte ear drops. After 14 days, sutures were removed and the patient was monitored for 10 more days. During the monitoring, Debeli was eating plenty of Timothy hay, consumed healthy amount of water, stool pellets were healthy and defecation was regular. He showed no signs of aggression, submandibular lymph nodes regressed to physiological state, no ear scratching was noticed, mental status unchanged. Oral and eye mucosa were light pink in colour, with no visible mucus from eyes, mouth or ears. Ear mucosa was not hyperemic, edematous and no longer warm to touch. During those days, he started to clean himself, so the fur and skin were in better condition. Only thing noticed was that his ear position was permanently damaged because otohematoma was present for far too long and damaged his ear cartilages. Patient showed no signs of illness remission during the monitoring phase, so he was discharged back home. After one month, owners were contacted and according to their words, he showed no signs of having ear problems again during his time at home.

Figure

Discussion

To the authors knowledge this is the first reported case of bilateral otohematoma in rabbits, and because of this, this case report is valuable study for further diagnostic and treatment options in treating exotic pets. Combination of systemic and topical drugs treated the primary disease, in this case otitis bilateralis, after which the patient caused the further damage by scratching his ears and causing bilateral otohematoma. Also, swab sample that was taken from his ear showed that it was a correct procedure to do because of the high antibiotic resistance that microbiology and antibiogram showed to several antibiotics. The simplicity of toggle ear fixation as a surgical option for fixing the otohematoma was found as a good option as it showed no complications, it was a quick procedure, no remission of hematomas and after 14 days sutures were removed without problems. CT would have been ideal as further diagnostic procedure in this case as it would show if any other hidden conditions were present, but no CT is available for veterinary patients in country of Bosnia and Herzegovina [3,4].

Conclusion

Case reports like this provide valuable sources of new information, different ways of treatment and for clinicians to share their experiences with individual cases. This way we can make others aware of unusual presentations or complications and deliver the educational messages. As an author of this case I would be honored if this case report helped any other exotic and non-exotic veterinarian in his further educational development.

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