

In addition mitomycin C was applied all around the recreated nasofrontal opening. A magnetic resonance imaging (MRI) was performed six months after the second surgery.

Results: Six months after the second surgery the exophthalmos and strabismus had nearly completely disappeared. On the MRI a large nasofrontal opening was seen as well as deformed walls of the frontal sinus. At one year follow-up the dog is symptom free.

Conclusion: The frontal mucocele is a rare condition in the dog and is usually of traumatic origin. It has to be included in the differential diagnosis of exophthalmos and strabismus. The successful outcome of this case allows us to conclude that the use of Mitomycine C helped to prevent new tissue proliferation at the nasofrontal opening.

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ELECTRORETINOGRAPHY IN LIZARDS (*GALLOTIA GALLOTI EISENTRAUTI*) REFERENCE VALUES IN HEALTHY INDIVIDUALS USING THREE DIFFERENT ANAESTHETIC PROTOCOLS

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Purpose: To determine the reference values of standard electroretinography (ERG) in apparently healthy lizards (*Gallotia galloti eisenrauti*) using three different anaesthetics: ketamine-medetomidine, propofol and diethyl ether.

Methods: Animals and anaesthetics: Thirty five adult and reproductively active lizards were included in this study. The lizards were divided into three groups, depending on the anaesthetics used: Group 1 (8 animals) were under ketamine combined with medetomidine; Group 2 (16 animals) received propofol as anaesthetic and Group 3 (11 animals) were under diethyl ether. **Procedure:** A complete bilateral ocular examination of each lizard was carried out using a slit-lamp biomicroscopy and indirect ophthalmoscopy. In addition, a Visiosystem (Siem-Biomedicale, Nîmes, France) was used to generate the flash stimuli as well as record and analyse the electroretinographical response. The ocular examinations were performed following the recommendations of the International Society for Standard flash for dogs (Narfstrom), and the European Society of Veterinary Ophthalmologists (ESVO).

Results: ERG wave morphologies in lizards seem similar to those in other species of vertebrates, such as dogs or goats. The main ERG findings were: lower amplitude of "a" and "b" waves, lower amplitude of the photopic responses (due to cones) compared with the scotopic responses (due to rods), and that the lowest amplitudes were registered in "a" waves rather than in the "b" waves. An ANOVA study was employed to compare the wave morphologies of the three studied groups. The weight of the animals was also considered. In addition, ERG results between eyes were also compared in the same animal. We observed that the largest response, considering both the amplitude of the "a" and "b" waves, as well as the implicit time, was using the diethyl ether anaesthetic.

There were no differences between ketamine-medetomidine and propofol groups, except for the implicit time for "a" waves of the cones. No differences were observed in our study comparing eyes of the same lizard, nor due to weight effects.

Conclusion: The anaesthetic employed to restrain the lizards should be considered as an important factor for performing an ERG exam. This fact could be increased if any lesion is present in the patient. Further studies are needed to understand the exact effects of anaesthetics on ERG recording in lizards, both in healthy and in pathological conditions.

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KERATOKONJUNCTIVITIS SICCA DUE TO PERIPHERAL NEUROPATHY ASSOCIATED WITH HYPOTHYROIDISM IN A HORSE

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Purpose: Peripheral neuropathy caused by hypothyroidism is a relatively rare, but well-documented disorder in humans and dogs. Different forms exist: spinal nerve neuropathy/mixed neuropathy (cranial and spinal nerves)/autonomic system neuropathy. If autonomic nerve fibres are affected decreased tear production, dilated pupils or anisocoria can be noted. Peripheral neuropathy of parasympathetic nerve fibres of the facial nerve causing keratoconjunctivitis sicca (KCS) associated with hypothyroidism has never been reported in horses.

Methods: A 6-year-old bay German (Saxon) Warmblood gelding was presented because of bilateral squinting and headshaking for the last seven months. It showed increased snorting and flehmen and was reluctant to be touched or groomed in the face, especially around the nose.

Results: Clinical and Ophthalmological Examination: Normal clinical examination, overweight (680 kg) with a cresty neck. Moderate blepharospasm of both eyes, the left eye being more affected, bilateral hyperaemic and oedematous conjunctivas and lustreless corneas. Schirmer Tear Test was only 7 mm/min for both eyes and the nasal mucosa was dry. Touching the horse's nostrils and face paraesthesia and dysaesthesia were noted. **Laboratory and Ancillary Diagnostics:** Radiographs of the head, endoscopy, hematology and biochemistry were unremarkable. Serum concentration of thyroxine (T4) did not reach the lower limit of the reference range values (17 – 53 nmol/l) and was less than 12.9 nmol/l. TRH and TSH stimulation tests were performed and confirmed the inability of the thyroid gland to produce T4. Ultrasonographic evaluation revealed small, hypochoic thyroid lobes with reduced lobulation compared with the thyroid gland of a normal horse. Westernblot ruled out autoantibodies against Thyroglobulin, T3 or T4. **Diagnosis:** Bilateral Keratoconjunctivitis sicca and dry nares due to peripheral neuropathy (parasympathetic facial nerve) associated with hypothyroidism. **Clinical Management and Therapy:** N-hyaluronat 0.5% q4h and vitamine A ointment q12h were used as lubricants and protection for the cornea. Synthetic thyroid hormone (levothyroxine) was supplemented at a dose rate of 20 µg/kg q24h per os in the morning about 30 min before the grain meal. **Outcome and Follow up:** After three weeks of supplementation, serum T4 was in the reference range with 38.5 nmol/l and the owner reported weight reduction and a change in behaviour. At a re-examination with the local veterinarian