functions and in the presence of amyloid plaques throughout the brain suggest that lesions are either located in key anatomic locations that govern the blink reflex pathway like the rostral colliculus. Alternatively, cerebellar cortical degeneration affecting the functions of the corticopontocerebellar pathway that modulates blinking may also cause an abnormality. Therefore, the corneal ulcers were suspected to be associated with a delay in the blink response caused by a predisposition to develop neurodegenerative lesions and leading to keratitis sicca. It has been reported in human cases that altered neurological functions associated with having an AD phenotype may affect eye movements and blinking. The 5XFAD model may also have the same predispositions to developing corneal and other eye lesions like some human patients. To the authors' knowledge, this report is the first to characterize a predisposition for 5XFAD mice to develop corneal ulcers and other eye pathologies.

P103 Intrahepatic Cholangiocarcinoma in a Hamadryas Baboon (*Papio hamadryas*)

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During a routine biannual physical exam, a 21-y-old outdoor-housed, 13.70 kg, female, hamadryas baboon *(Papio hamadryas)*, was noticed with generalized icterus and abrupt weight loss. The animal was transferred to the hospital for a comprehensive evaluation and medical care. Laboratory findings included anemia, hyperproteinemia, and severely elevated liver markers (ALT 352 U/L, ALP 10,493 U/L, GGT 341 U/L, bilirubin 12.6 mg/dl, cholesterol 453 mg/dl). Abdominal ultrasound revealed hepatomegaly with mildly distended biliary ducts and increased echogenicity of the gallbladder with thickening of the duct walls. Despite having a good appetite and normal stools, the animal was euthanized due to continued weight loss, abnormal liver values, and overall poor prognosis. At necropsy, the liver was grossly pale-yellowish and severely enlarged. A hard, off-white mass (2 cm in diameter) was extending from the gallbladder and biliary duct's wall. Mediastinal lymph nodes were enlarged. Sections of the liver, spleen, and mediastinal lymph nodes were fixed in 10% formalin solution and sent for histopathology. The slides were prepared and stained with H & E. Under light microscopy, the liver contained a loosely demarcated unencapsulated, infiltrative mass that replaced the bile duct and hepatic parenchyma. The mass was composed of polygonal epithelial cells that formed branching, variably sized ducts bordered by a prominent scirrhous reaction. Biliary carcinomas tend to be aggressive with frequent and widespread metastasis; metastatic disease was not identified in this case, although the possibility of micrometastases in tissues not examined histologically cannot be completely excluded. Case reports of primary hepatobiliary neoplasms in nonhuman primates are scarce. To the author's knowledge, this is the first report of an intra-hepatic cholangiocarcinoma in a geriatric female baboon.

P104 Three Dog Night: Managing 28-Hour Survival Anesthesia in Canines

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Prolonged survival anesthesia, while required for certain types of studies, presents unique challenges for the veterinary team to consider and manage to ensure animal welfare and comfort and data yield for the researchers. We recently provided support for survival anesthesia in 3, 25 kg mixed-breed female dogs previously implanted with microelectrode arrays in the visual cortex. These arrays needed to be stimulated constantly under anesthesia for 28 h, with measurements taken at set intervals. Due to the length of the procedure, both the investigative and veterinary teams worked in shifts to ensure the animals were properly monitored and to reduce the risk of errors secondary to fatigue. Anesthesia was induced with an intramuscular injection of buprenorphine (8.4 mcg/kg), ketamine (2.8 mg/kg), and dexmedetomidine (12.6 mcg/kg), followed by orotracheal intubation and maintained with isoflurane (1-2.5%). Anesthetic parameters including oxygen flow rate, isoflurane percentage, heart rate, body temperature, noninvasive blood pressure, end tidal CO_2 (EtCO2), ECG tracing, ventilation rates, SpO2, and fluid totals were monitored continuously and recorded every 15 min. The canines were placed on a mechanical ventilator (tidal volume 10-15 mL/kg) and urinary catheters were placed to monitor urine output. Baseline hematocrit and blood glucose values were taken, and subsequent values were taken approximately every 3 h to adjust intravenous fluid rate and type as needed. At the same intervals, a technician would move the animals' limbs and adjust their positions to prevent decubital ulceration. At the end of the procedure, we assessed the success of these efforts and determined several modifications to be made in future procedures. We would not use a stereotactic frame, as we noted lesions on the inner lip of one dog corresponding to the placement of the mouth bar. We would also have extra anesthetic circuits readily available, as excessive moisture caused aberrant readings of increased EtCO2 that resolved when the circuits were replaced. Future staffing would also be split into 3 teams instead of 2, which would reduce or eliminate the overtime required from each staff member.

P105 Lipid Bound Extended-release Buprenorphine Effectively Attenuates Postoperative Hypersensitivity in an Incisional Pain Model in Mice (*Mus musculus*)

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Sustained-release buprenorphine is used to manage postoperative analgesia in laboratory mice for up to 3 d. A new FDA-approved extended-release buprenorphine (XR) was recently released to the laboratory animal medicine market for use in rodents, but little is known about its use in mice. In this study, we examined the efficacy of XR. The aim was to investigate whether a high dose of XR effectively attenuates postoperative hypersensitivity better than a low dose of XR in a mouse model of incisional pain. Male C57BL6/J mice (n=44) were randomly assigned to 1 of 4 treatment groups: 1) saline (1 ml/kg SQ, once); 2) sustained-release buprenorphine (Bup-SR, 1 mg/kg SQ, once); 3) low-dose extended-release buprenorphine (XR-lo, 3.25 mg/kg SQ, once); 4) high-dose extended-release buprenorphine (XR-hi, 6.5 mg/kg SQ, once). Mechanical and thermal hypersensitivity were evaluated daily on days 1, 0 (4 hrs), 1, 2, and 3. Both mechanical and thermal hypersensitivity were observed in the saline group on day 0 and day 1; values were comparable to baseline by day 2, indicating mice experienced pain on day 0 and day 1, but were comparable to baseline by day 2. Bup-SR, XR-lo, and XR-hi attenuated mechanical hypersensitivity on day 0 and 1 postoperatively. While XR-lo attenuated thermal hypersensitivity on day 0, neither XR-lo nor XR-hi attenuated thermal hypersensitivity on day 1, when we expected mice to be experiencing pain. There were no abnormal clinical observations or gross pathologic findings in any of the groups. Results indicate that a high dose of XR did not effectively attenuate postoperative hypersensitivity better than a low dose of XR in a mouse model of incisional pain. The data suggest that XR-lo (3.25 mg/kg) effectively attenuates both mechanical and thermal hypersensitivity postoperatively while XR-hi (6.5 mg/kg) attenuates mechanical but not thermal hypersensitivity. Our results also suggest XR-Lo and XR-Hi are comparable to Bup-SR in attenuating mechanical hypersensitivity on days 0 and 1, and suggest XR-Lo may be more effective in attenuating thermal hypersensitivity than Bup-SR.