pool after an accidental short-term electricity flow of standard household voltage (220 V). A gross and histological examination was performed.
Results: Grossly, the skin was diffusely slightly reddened without evidence of local burn-like lesions. The subcutis was oedematous and the skeletal muscles were superficially (about 1.5 cm depth) pale reddish brown. Due to pronounced post-mortem changes, the inner organs could not be meaningfully assessed. Histological examination of the skin showed marked subepidermal and mild intradermal separation, multifocal loss of the epidermal lamina densa, collagen coagulation, severe dermal and muscular oedema, dilatation and hyperaemia of capillaries in the subcutis and necrosis of skeletal muscle fibres close to the subcutis. Elongation of epidermal cells and nuclei typical of electrical injuries were not detected.
Conclusions: The pathological findings in the cat were consistent with injuries due to electrothermic trauma, likely as a consequence of electrocution with a large contact area in the water due to electricity flow of 220 V voltage.

POST-MORTEM INTERVAL IN THE DOMESTIC CAT: A MACROSCOPIC EVALUATION

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Introduction: In recent times, the role of pets in society has increased and a high number of cruelty episodes have been reported and prosecuted. Few studies are currently available regarding the determination of post-mortem intervals (PMIs) in the veterinary field; the most investigated species are pigs, usually considered as proxies to the human species.
Materials and methods: Twenty-four carcasses of domestic cats were left in the field during February to June for 1 day, 3 days, 14 days or 28 days. Three evaluation scales were created, based on the observation of the carcasses, for head and neck (score range 1–15), trunk (score range 1–8) and limbs (score range 1–6), respectively. A total body score was then calculated for each animal, as a sum of the individual regional scores. The relationship between the scores and the accumulated degree-days was investigated.
Results: In agreement with other authors, we observed that the head and neck regions were the first to show signs of decomposition, accelerated by larval colonization. Different from other studies, skin discolouration, cadaveric swelling and leakage of body fluids from the natural orifices was observed. The identified one-phase association models appear to be a promising tool to estimate the PMI on the basis of the visual evaluation of corpse decomposition.
Conclusions: The proposed evaluation system represents a simple and fast method to estimate PMI. It can also be applied at the site where the carcass is found, different from methods requiring laboratory settings.

A NEW HISTOLOGICAL SCORING SYSTEM TO ESTIMATE THE POST-MORTEM INTERVAL IN CATS

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Introduction: In the veterinary field, only a few studies have been conducted on the estimation of the time elapsed since death, and most of them focus on the macroscopic evaluation of carcasses, while those that focus on microscopical changes generally consider one or few tissues only. We therefore aimed to create a scoring system based on the histological analysis of different organs, as a basis to estimate the post-mortem interval (PMI) in cats.
Materials and methods: Twenty-four cats donated to the Department of Veterinary Sciences, University of Turin, by the owners were enrolled. Cadavers were placed in a dedicated area, in contact with the soil and exposed to insects and environment. For every organ, a cumulative histopathological score was calculated and cut-off values for the loss of "diagnostic value" and one for "organ dissolution" were also established. The relations between histopathology cumulative scores and the accumulated degree-days (ADDs) were determined through one-phase association models for precise estimation of the PMI.
Results: While some organs lost their "diagnostic value" as early as 3 days *post mortem* (eg, pancreas, adrenals) before organ dissolution, others, such as skeletal muscles, retained good morphology for longer PMIs (14 and 28 days), in direct correlation with the ADDs.
Conclusions: Estimation of the PMI based on a multiorgan histological scoring system is an innovative tool for veterinary forensic pathology. The present study provides useful information on the stage of tissue autolysis and decomposition in cats determined by histological examination, to further improve the accuracy of PMI estimation.

CANARIAN COMMON RAVENS ELECTROCUTION: A POST-MORTEM CASE STUDY

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Introduction: The Canary Islands Government established by law the investigation of cause(s) of death of ravens; it hence requests a forensic investigation for each raven found dead in the Islands.
Materials and methods: The entire bodies of three canarian ravens (*Corvus corax canariensis*) (two females, one male, mature/adult) were submitted frozen for forensic pathological investigations. These included imaging diagnosis, necropsy and sampling for microbiology and toxicological studies.
Results: The Environmental Police went to the place of the scene on the same day and detected three dead ravens next to the metallic support of the power line. The morphological diagnoses included: Feathers: extensive thermal damage. Claws: multisegmental coagulative necrosis with vesicle formation (thermal damage). Heart: severe haemopericardium (raven 2), mild multifocal chronic lymphohistiocytic myocarditis (raven 1). Skin: multifocal thermal injury with skin laceration (raven 1), subcutaneous shotgun pellet ventral to the right mandible (raven 2). Coelomic cavity: severe haemocoeloma with hepatic lacerations (raven 3). Skeletal muscle (legs): severe segmental necrosis and necrosis in hypercontraction bands (raven 1), moderate acute degenerative changes (raven 2). Lungs: Severe haemorrhages (ravens 1 and 2), moderate oedema. Liver: mild diffuse chronic lymphoplasmacytic pericholangitis (all ravens) with intralesional trematodes (raven 3).
Conclusions: Electrocution was considered as the cause of death, the pathological entity as anthropogenic death. The Canary Islands administration has now requested that the Islands government installs insulated devices on pre-existing power poles in order to mitigate avian electrocution.