

Overview on crime scene procedures involving animals

Abstract

Animals or parts of animals in crime scenarios often require the assistance of veterinarians for the proper examination of the traces. The forensic examiner in charge must keep in mind concerns about bio safety, medical care and specific types of evidences related to animals. It is important to fully understand the context of the presence of animals in place, whether dead or alive. The animals can give a relevant "testimony" as a source of ballistic traces, chemical evidences or shape of wounds that allow the correlation with an instrument or agent. Live animals in crime scenes should be photographed, properly identified and evaluated on the basis of nutritional, health, behavioral and environmental indicators. This article aims to present the peculiarities of crime scene investigations influenced by animals. In conclusion, lack of knowledge and training or neglect of evidences from animal origin can seriously compromise the quality of the outcome in any scenario.

Keywords: legal veterinary medicine, forensic experts, animals, crime scene investigation

Volume 7 Issue 2 - 2019

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Received: July 09, 2018 | **Published:** April 05, 2019

Introduction

Crime scene investigation is one of the most important criminal expertise assignments. It depends on the appropriate treatment of the traces found in crime scenes, helping to elucidate the materiality, authorship and dynamics of a crime. It is necessary to recognize the importance of the expertise as a fundamental factor to carry out intelligent and professional investigations, which result in the identification of criminals and in the production of proves.¹ There are a number of cases where crimes involve animals, parts of animals, products and by-products of the animal industry, which require the assistance of a veterinarian for the proper examination of the traces. Examples include crimes against wildlife, such as animal abuse, illegal hunting and illegal trade of animals, fraud in animal products and veterinary medicines, crimes against public health and environmental crimes. In addition to these cases, there are many others that require the performance of a veterinary professional, either by private competence or in collaboration with professionals from other areas, such as biologists, chemists, engineers, etc. Animals have relevance to crime scene investigation without necessarily being the main object of the crime, but associated in an indirect manner, in also other situations. This article aims to present the peculiarities of crime scene investigation, which in some way are influenced by animals, depending on the nature or characteristics of the crime committed.

Discussion

Crime scene is not only the area where a crime has occurred but also covers all places where the criminal may have committed acts associated with the crime. The expert processing at a crime scene generally consists of isolating the area, conducting a thorough search for evidences and collecting them appropriately for subsequent examinations in a forensic laboratory, establishing hypotheses for the dynamics of the facts and recording the findings through narrative description, sketch and photography. However, whenever there is

involvement of animals or parts of animals, there are specific issues that should be addressed by experts, such as those listed below;

Biosafety

Every professional should be aware of the risks inherent to his or her activity. Before and during crime scene expertise, the expert must be aware of potential risks to his or her physical integrity and to the integrity of others. Professionals should be instructed to use Personal Protective Equipment, which must be adjusted to the level of protection required in each specific case. Locations where animals or parts of animals are involved are potential sources of risks, among which we can mention: chemical risks - poisons, medicines, gases, powders; Physical hazards - bites, stings, scratches, contact with sharp or blunt objects; Biological risks - blood, semen, secretions and other bodily fluids that may be contaminated by pathogenic microorganisms; others.² At the planning stage of the action, detailed information on possible risks and site safety conditions should be sought so that the most appropriate individual protection equipment is included among the materials used by the experts.

Medical assistance

When attending a crime scene, one should keep in mind that preserving the life and safety of all involved is a priority. Animals injured, suffering or running some risk in the place should be immediately attended and rescued, although this implies in some damage to the evidences.² It is not recommended this care to be performed by the experts responsible for processing the crime scene, even if they are veterinarians, and the injured animals should be sent to a clinic or veterinary hospital as soon as possible.

Protection of crime scene

In cases of violent crimes, the initial scenario is often chaotic, with the possible circulation of police officers, neighbors, other people and animals, which may compromise the results of expert examinations,

should they interfere with the integrity of the evidences. Once informed of the offense, the police authority shall start procedures to protect the crime scene to ensure that the premises are not changed until the arrival of the criminal experts. Any changes should be recorded by the expert in the report, where he will discuss the consequences of these changes. Animals on the spot may also change the position or characteristics of the evidence, whether they are “victims” or animals that just access the site later. The protection of the site and the evidence should also consider such possibilities.²

The context of animals in crime scenes

The expert responsible for site processing should conduct a thorough search so that all traces are properly located, marked and documented (by photograph, narrative description and sketch) prior to collection and packaging of evidences. Nevertheless, it is important to fully understand the context of the presence of animals in place, whether dead or alive. Live animals, when present in a crime scene, can provide extremely useful information for clarifying the case. There are situations where the animal can be the main object of the crime, where they are “victims”, like in cruelty cases. All animals at a crime site should be photographed, properly identified and evaluated on the basis of nutritional, health, behavioral and environmental indicators.³ In cases where there is a need for seizure of animals, all care must be taken for their safety and well-being, including transportation in an appropriate vehicle to custody in an establishment that meets minimum requirements for the health, nutrition and comfort of the animals. On the other hand, animals might be in a context of criminality toward humans. Sometimes animals are hit because they represent an obstacle to the access of a residence. Guard dogs are often targets for gunshots or attempted poisoning so they do not bark or attack invaders. In this cases, the animals can give a relevant “testimony” as a source of ballistic or chemical evidences, or even wounds that allow the correlation with an instrument or agent. The behavior of the animals can also give important information about possible aggression. Identifying feelings of fear, stress and anger can be crucial for clarifying cases of cruelty and domestic violence.⁴ In cases involving dead animals, the presence of cadavers and body parts requires careful approach since the very beginning of the examination, so that the main traces associated with the death are duly recorded and preserved until the corpse is sent to the necropsy. The perinecropsic examination consists of the external examination of the corpse carried out in the course of a crime scene investigation.⁵ These exams can reveal signs of the weapon, instrument or means used to cause injury or death of the animal. The clues include as the macroscopic characteristics of the lesions, which vary according to the involved energies, the weapon itself or instrument of a crime, blood spots, fight and bite marks, as well as data to estimate the time of death. In addition to blood, other biological traces may be present at

crime sites involving dead animals such as semen, saliva, sweat, hairs, feathers, teeth, bones, and scaly cells. Such traces may assist in the identification of the offender or the victim, place a suspect at the scene or exclude him. The collection of these traces may be carried out using sterile swabs, bags or paper envelopes, depending on their nature. When it is possible, the item containing biological traces can be sent to the laboratory in full, such as pots, towels, papers and clothes.⁶ Forensic genetics and hair identification are extremely important in some cases, even for differentiation between species involved.

Conclusion

Crime scenes involving animals have peculiarities that require specialized procedures that must be performed by trained personnel. Lack of knowledge and training or neglect of evidences from animal origin can seriously compromise the quality of the outcome in any scenario. In many cases, it is recommended that crime scene investigation teams include veterinary practitioners or at least criminal experts with knowledge on legal veterinary medicine, for the proper handling of evidence and mitigation of risks.

Acknowledgments

This work is supported by Coordenação de Aperfeiçoamento de Pessoal de Nível Superior–CAPES, Edital Ciências Forenses 25/2014. Process n. 99999.000199/2016-08.

Conflicts of interest

The authors report no conflicts of interest. The authors alone are responsible for the content and writing of the paper.

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