



Lecture title: Causes of sudden Death

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Summary: Causes of sudden death in Equine

Lecture: Introduction to Veterinary Forensic Pathology

1. Definition

Veterinary forensic pathology is the application of veterinary medical knowledge—especially pathology—to cases where animals are involved in crimes or legal investigations. It focuses on understanding how and why an animal died, especially in suspicious, unnatural, or unexplained circumstances.

2. Importance of Veterinary Forensic Pathology

- **Animal Welfare:** Helps detect and prove cases of animal abuse, neglect, and cruelty.
 - **Legal Evidence:** Provides critical medical evidence in court cases involving animals.
 - **Public Health:** Identifies zoonotic diseases and biosecurity threats.
 - **Wildlife Conservation:** Assists in investigating illegal poaching, poisoning, or habitat destruction.
 - **Insurance & Liability Cases:** Determines cause of death for insurance claims or disputes involving valuable animals like racehorses or show animals.
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3. Key Roles of a Veterinary Forensic Pathologist

- Conduct necropsies to determine cause of death.
- Collect, document, and preserve forensic evidence (e.g., samples, foreign objects, trauma).
- Interpret findings in relation to trauma, disease, or environmental factors.
- Collaborate with legal authorities, animal control, and law enforcement.
- Testify in court as an expert witness.

4. Common Cases Investigated

- Animal abuse or cruelty
- Neglect or starvation
- Poisoning (intentional or accidental)
- Blunt force or gunshot trauma
- Drowning or asphyxiation
- Suspicious deaths in kennels, farms, or shelters
- Illegal hunting or wildlife crime

5. Procedures in Veterinary Forensic Pathology

- Case history and background collection
- Thorough external and internal examination
- Photography and documentation
- Sample collection for toxicology, histopathology, microbiology, DNA, etc.



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- Report writing with a focus on forensic terminology
 - Chain of custody maintenance for all evidence
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6. Ethical and Legal Considerations

- Veterinarians involved must follow strict legal protocols to ensure evidence is admissible.
 - Objectivity is critical; the role is to find the truth, not to advocate.
 - All findings should be scientifically justified and legally defensible.
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7. Challenges in Veterinary Forensics

- Limited resources and training in some regions.
 - Decomposition or scavenging may destroy evidence.
 - Differentiating between accidental injuries and abuse.
 - Lack of standardized forensic protocols in some countries.
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8. The Future of Veterinary Forensic Pathology

- Increasing collaboration with law enforcement and animal welfare agencies.
 - Growing demand for training and specialists in this field.
 - Emerging technologies like digital autopsies, forensic imaging, and DNA forensics.
 - A critical component in the One Health approach, connecting animal, human, and environmental health.
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