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Importance of Anatomy in clinical procedures

Manoj kumar Sinha*., Manju Sinha

Assistant Professor, Department of Veterinary Anatomy, Bihar veterinary college, Patna
Assistant Poultry Officer, Sheohar

Introduction

Veterinary Anatomy is considered as the backbone subject in the veterinary medicine and surgery. Anatomy is one of the foundational aspects of medical and veterinary education, and often deemed one of the most important. This is undoubtedly in part due to its palpable relevance for surgery; though the relevance of anatomy for all aspects of healthcare has been widely discussed Anatomy knowledge was used by veterinary clinicians working within primary care especially in small animal veterinary practice. While previously doctors have stated that anatomical knowledge is more critical for surgery than medicine. Therefore, sufficient anatomical knowledge is necessary for the veterinarians and biologists to execute appropriate procedures.

Importance in Clinical Procedures

Clinical examination is one of the fundamental for diagnosing animals which are presented to clinic. Veterinary clinical examination relies on knowledge of Anatomy, Physiology, Pathology and Animal behavior, skills in the methods and techniques of clinical examination, clinical sign and pathogenesis of the diseases which are the basic requirements for clinician in his/her good diagnostic approach. Regional anatomy of thoracic, abdominal and associated systemic organs is very important to undertake clinical examination of the organs and identify disturbances of the any systems. The examination of organs is performed by inspection, palpation, percussion and auscultation the anatomical knowledge is very important. To locate any abnormalities in organs, the knowledge of



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anatomical position of organs is very important. In bloat case, the left side would be bulged, and the motility would be decreased.

Pleurocentesis: For the drainage of fluids from the pleural cavity is performed at the lowest safe point in the standing animals. The optimum point for drainage of the pleural cavity varies slightly between the right and left sides among species, according to the position of the heart and pleural reflection. A general rule is to puncture the intercostals space somewhat dorsal to the costochondral junction and midway between the ribs to avoid the ventral intercostals vessels.

Cardiac puncture: For obtaining blood or the injection of the any drug is usually done on the right side in the fourth or fifth intercostals space a few centimeters above the sternum, at about the level of the olecranon. If cardiac puncture is for resuscitation and is associated with cardiac massage the left fifth intercostals space is preferred, when the puncture will be through the thicker left ventricle which is less likely to bleed during the massage and produce cardiac tamponade.

Thoracic drainage: A skin incision to be made in the 10th intercostals space, caudal to the 10th rib, at the junction of the dorsal and middle thirds of the chest wall for the placement of tube for thoracic drainage. The ideal position of the tip of the tube is to lie along the sternum, anterior to the heart.

Bone marrow Aspiration: For this the animal is restrained in lateral recumbancy or in standing position. The sites that are most accessible for bone marrow aspiration in the dog are the proximal humerus, proximal femur and the wing of the ilium, approached either from dorsal crest or lateral face. Bone marrow can be aspirated from the dorsal crest of the wing of the ilium.

Cystocentesis: Performed with the animal in dorsal recumbancy, lateral recumbancy, or in standing o being held standing on its hind limbs by elevating its forequarters.

CSF Collection: The site of CSF collection from the cistern magna is between the occipital crest and most prominent points of the wings of the atlas.

Conclusion

Anatomy was found to be interwoven within all aspects of clinical practice; however, veterinarians were uncertain in their anatomy knowledge. This impacted their confidence and how they carried out their work. Veterinary anatomy was used for carrying out a physical examination, performing clinical techniques and procedures, surgery, dentistry, and undertaking and interpreting diagnostic imaging. Importance of anatomy is when we doing surgery and then there are new imaging techniques and modalities and then having that foundational knowledge of anatomy suddenly



becomes really relevant and important''. Veterinarians frequently referred to the use of mental imagery, and topographical and three-dimensional anatomy knowledge in allowing them to perform a clinical examination.

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