

**MJF COLLEGE OF VETERINARY AND ANIMAL SCIENCE,
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DEPARTMENT OF VETERINARY PATHOLOGY
NECROPSY EXAMINATION OF
LARGE ANIMAL
&
RUMINANTS

What is a Necropsy ?

- A necropsy, also called a post-mortem exam, is an examination of an animal after death.
- It is performed to obtain an accurate cause of death, and when done properly involves looking at the animal as a whole, as well as looking at each individual organ within the body.
- Careful examination and sampling of organs helps determine the cause of death, whether it is by disease or trauma .

POSITION OF CARCASS

Ruminants : Place the carcass on the left side to avoid the interference of rumen during examination.

Horse : Place the carcass on the right side to avoid the interference of colons during examination.

External Examination of Carcass of Different Animals during P.M. Examination

- Identification of the animal on the basis of age, body markings, tag no. etc.
- Species, breed and sex of the animal.
- Body coat of the animal.
- General condition of the carcass.
- Any discoloration on the body.
- Examination of body surface of carcass to find out any external Injury, burn marks, wound, swelling, abscess etc.
- Examination of the natural orifices. .
- Examination of bones and joints for presence of fracture and joints.

- Examination of the visible mucous membranes and Condition of eyes and pupil.



Pale conjunctival mucosa

Clinical signs
☐ Visible mucous membrane will be pale

Conjunctiva pale - Anemia - Goat



Pale conjunctiva



Pale oral mucous membrane



Pale ocular mucous membrane



Icteric mucous membrane



Internal Examination Of Carcass Of Ruminants During P.M. Examination


- Carcass should be placed on the left side down in order to keep the rumen out of the way.
- Hind limbs are severed by cutting all muscles and attachments. Cut around the udder in female and remove it from its attachments.
- In the case of male, the penis along with the prepuce is detached and drawn backward up to ischial arch. Fore limbs are also severed.
- An incision is made through the skin on the midline from between the jaws to the perineal region taking due care for not puncturing the viscera.

- Reflect the abdominal wall by making incision along its periphery and Examine for the normal position of the viscera and note the changes.
- Examine Uro-genital organs.
- Cut the diaphragm dorsoventrally close to its attachments and Thoracic cavity is opened by cutting the ribs along their ventral ends from thoracic inlet to last rib.
- Remove thoracic organs by severing oesophagus, trachea and other attachments.
- Examine Heart and lungs .
- If required, open the skull for examination of brain.

Horse

- Carcass should be placed on the right side down.
- Hind limbs are severed by cutting all muscles and attachments.
- Cut around the udder in female and remove it from its attachments .
- In the case of male the penis along with the prepuce is detached and drawn backward up to ischial arch. Fore limbs are also severed.
- An incision is made through the skin on the midline at ventral side from chin to anus taking due care for not puncturing the viscera.
- Skin of left side of neck, thorax and abdomen is reflected back as possible.

- Incise through the midline from xiphoid cartilage to pubis and from pubis to lumbar region through abdominal wall.
- Pull upward and forward the large flap of abdominal wall and cut diaphragm dorsoventrally close to its attachments.
- Examine for the normal position of the viscera and note the changes.
- Thoracic cavity is opened by cutting the ribs along their ventral ends from thoracic inlet to last rib.
- Remove thoracic organs by severing oesophagus, trachea and other attachments.
- Examine Heart and lungs to note the changes.

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- ★ For examining the internal organs of the carcass following procedures are to be adopted in different species of animals.

SUBCUTANEOUS TISSUE:

- Normally fair and moist.
- It may be dry, congested and haemorrhagic.

ABDOMINAL AND THORACIC CAVITIES:

- Examine the nature of the exudate, if present and record whether there is any abomasal displacement, and hernia etc.

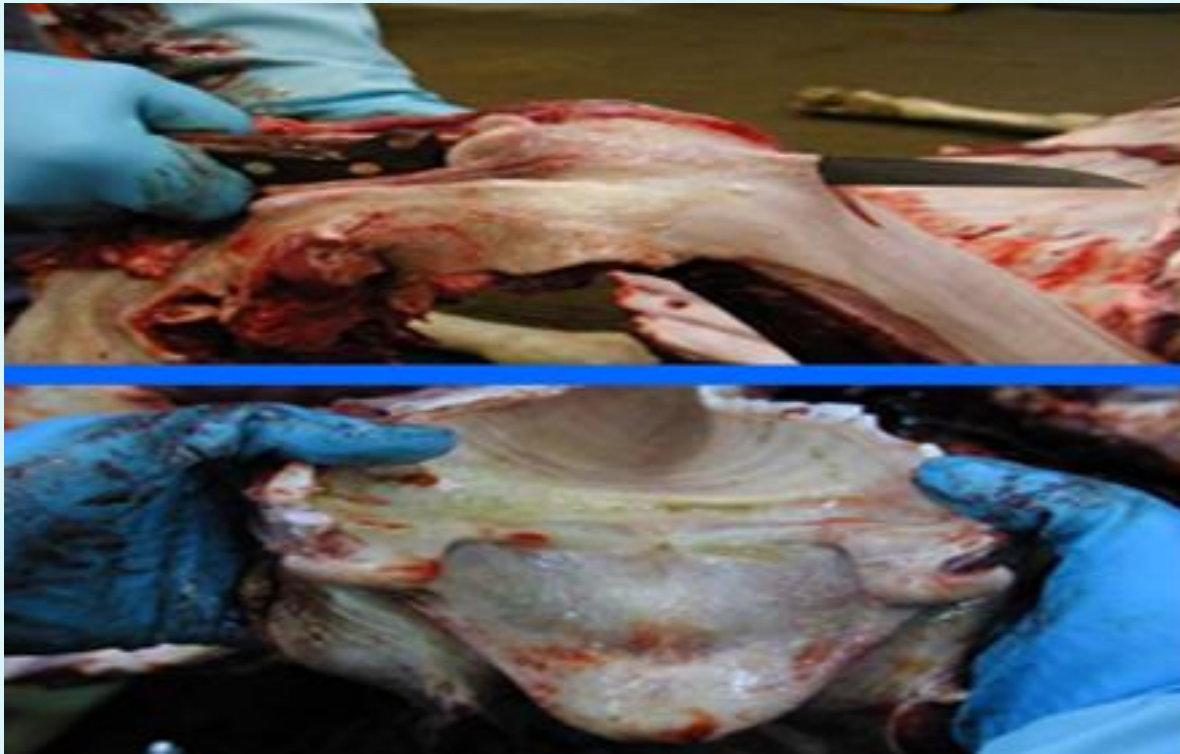
HEART

- Look for epicardial haemorrhages.
- Record the nature of the pericardial fluid, fibrinopurulent (Traumatic pericarditis) exudates and foreign body may be seen.
- Open the heart and examine the endocardium and heart valves for valvular growth (eg. Vegetative growth in TRP), thrombus etc.



RESPIRATORY SYSTEM

- Mucosa of larynx, trachea and bronchi may be congested. They may contain frothy exudate pulmonary edema, aspirated substances etc.
- Examine the lungs and associated lymphnodes .



DIGESTIVE SYSTEM

- Open the rumen, reticulum and omasum in case of ruminants.
- Remove the content and examine for any lesion or parasite.
- Examine the reticulum for the presence of any foreign body like needle or any sharp object.
- Examine the omasum for congestion, ulcers, hemorrhage, swelling of folds and edema.



PARASITES IN THE RUMEN



→ Amphistomes

→ Rumen wall



Postmortem changes in the rumen includes bloating with gas, sloughing of the mucosa and blackish discoloration.

Intestine

→ **Ballooned intestine**



ABOMASUM



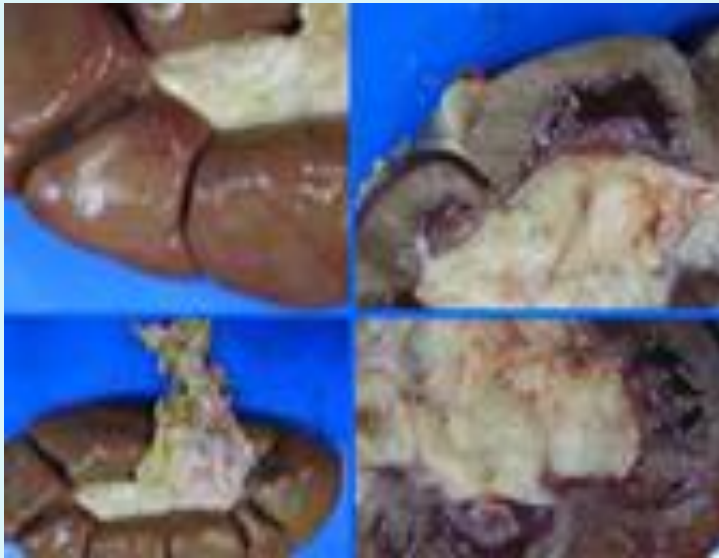
Normal Esophagus



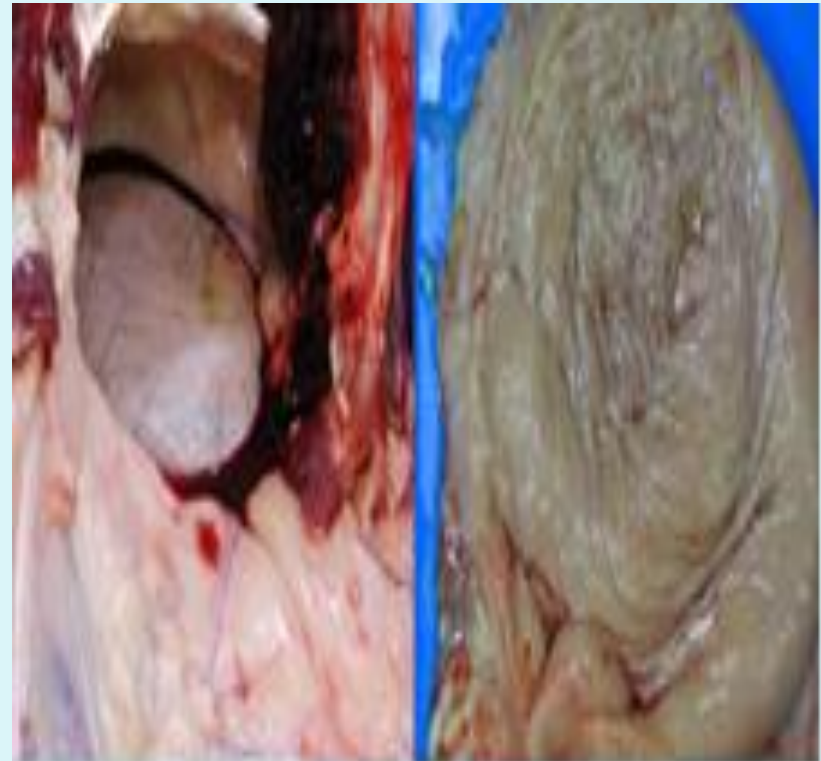
URINARY TRACT

- Examine the subcapsular haemorrhages.
- Examine kidneys, urethra and urinary bladder for any haemorrhages, stones.

Kidney



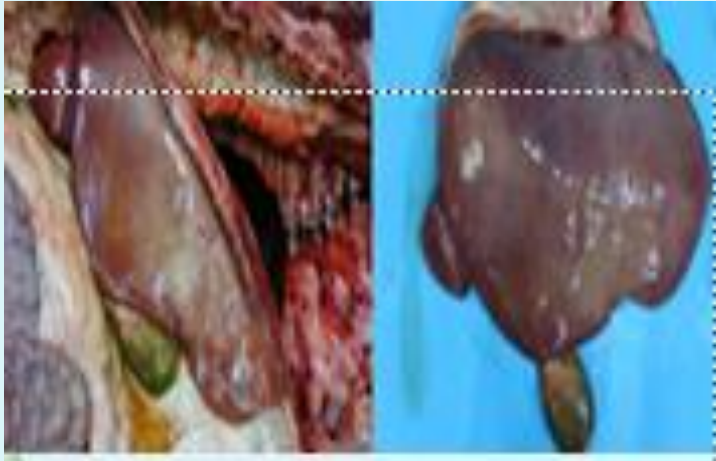
Urinary Bladder



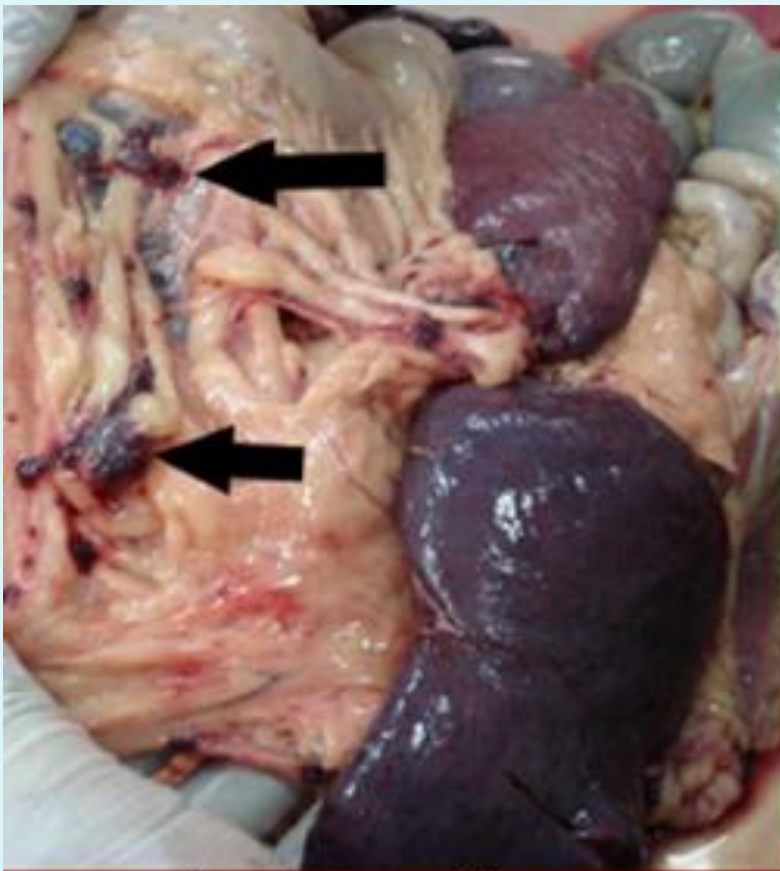
PARENCHYMATOUS ORGANS

- Examine the liver for congestion, hemorrhage, nodules, enlargement and also the gall bladder.
- Examine spleen for size, shape, consistency, congestion hemorrhage, necrotic foci etc.
- Examine the sub scapular, mediastinal lymph nodes.
- Examine the ureters for enlargement or obstructions. **spleen**

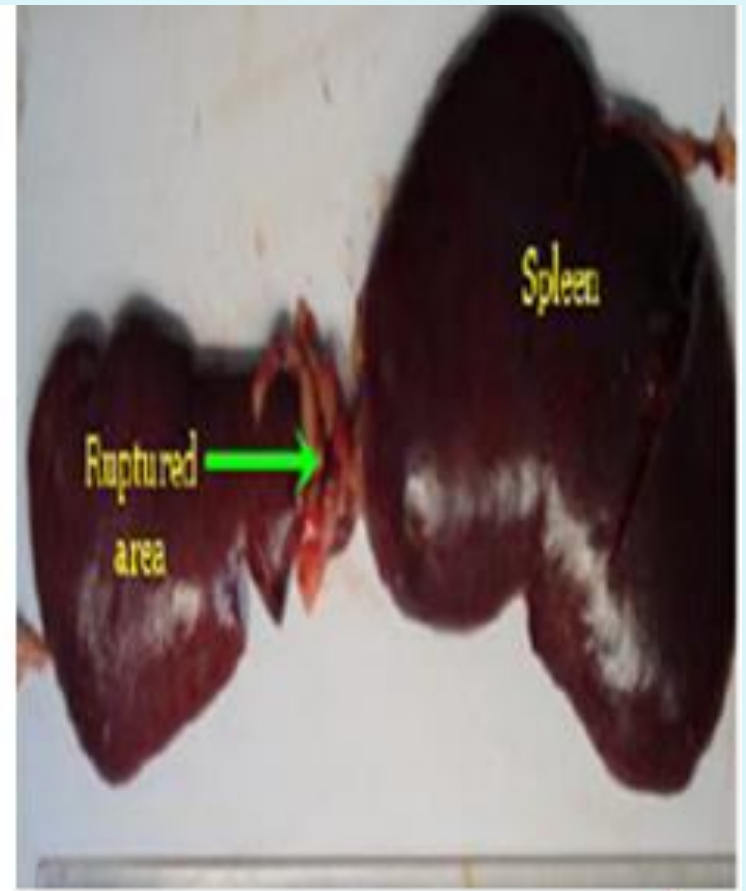
Liver



RUPTURE OF SPLEEN



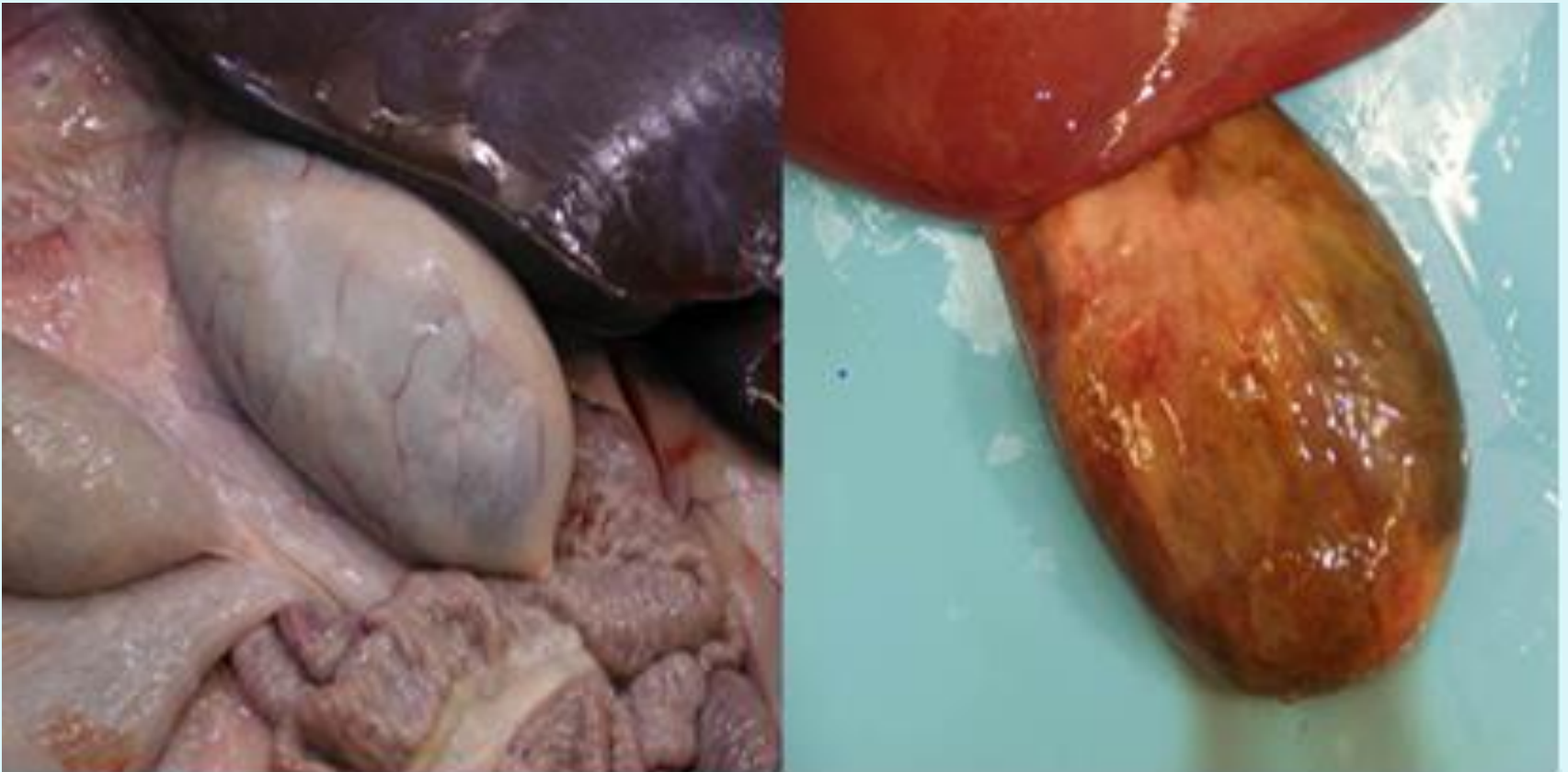
Arrows indicate splenic pieces fallen on to omentum



Liver Necropsy



Normal Gall Bladder



GENITAL TRACT

Female:

- Separate the female genital tract from the rectum and take it out. Open the vulva to the tips of cornua.
- Examine the vagina for congestion, hemorrhage, trauma, granular structure and any foreign body.
- Open the fallopian tubes and uterus and examine for edema, congestion and hemorrhage etc.
- Examine the ovaries by incising them.




Haemorrhagic
endometrium

Haemorrhagic endometrium - Uterine
prolapse in a cow

Male

- Make an incision from the neck of the bladder to the urethra.
- Open the urethra and examine for any lesion or ulcer.
- Examine the testis for atrophy, enlargement, edema, congestion and adhesion with skin and epididymis.

A rectangular, light brown paper tag with a hole on the left side, tied with a dark string. The tag is placed on a piece of light-colored burlap fabric. Three white daisies with yellow centers are scattered around the tag: one in the foreground to the right, and two in the background, one to the left and one to the right. The background is softly blurred.

Thank
you!