

# **NECROPSY PROCEDURES FOR EQUIDAE**

Since it is difficult to fit the cadaver on the necropsy table, the necropsy is done on the ground. However, necropsy of foals can be done on the table.

## **Necropsy Position**

The horses are laid on the right side of the animal as the colons and cecum cover a large volume on the right side of the abdominal cavity and make the examination of most organs difficult. The position on the back is applied to smaller ruminant animals (foal).

## **Skin Facing and Separation of Limbs**

After the general and special inspection of the cadaver is completed:

The skin and the external genital organs pass through the skin in the lateral position. The upper and lower extremities are separated.

- After the abdominal cavity is opened, the first colon and cecum covering this space are taken out without leaving the cadaver. In the meantime, left-handed spleen, depending on the position of the animal is removed from the connection is removed and taken out. The removal of organs starts from the intestines, followed by others.

Then, respectively:

- Colon parvum
- Jejunum and ileum sections of small intestine
- Large colon (right and left dorsal and ventral colon)
- Cecum
- Stomach with duodenum
- The rectum is removed.

- **Separation of the colon and secum**
- Since the animal lies on the right side, the ventral and dorsal colon on the left come to the top. The colon and secum are pulled out, holding the Flexura pelvina (where the ventral colon is left behind, where the ventral colon is curled into the dorsal colon in the pelvis). The colon dorsale is stretched to the right, in the upright position to the head of the animal and in the upright position to the cadaver.

- **Removal of the colonn parvum**
- Close to the anus of the rectum and cut a bond is cut.
- The front end is held with the left hand and is lifted up and stretched. With the knife on the right hand, the mesenterium of the colon parvum is cut.
- Come to the lig. the duodenocolicum.
- Two ligaments are placed on the colon parvum with an interval of 5 cm.
- The colon parvum is cut between the ligaments and the intestine is taken out.

- The small intestine is removed from the jejunum.
- The duodenum is removed together with the stomach and removed after the secum and colon.
- First there is the last part of the duodenum. Since the animal is lying on its right side, the duodenum falls on the right side of the abdominal cavity and the radix adhering to the vertebral canal falls to the region that is below the mesenterium. The last part of this is under the left kidney.



- If the other end of the lig. duodenocolicum is on the border of the large and small colon, the last part of the duodenum and the beginning of the jejunum are found.
- This ligament is cut to the front of two ligaments with an interval of 5 cm.

- The beginning of the jejunum behind the cut is held with the left hand and pulling back to the mesenterium (mesocolon) is stretched.
- With the right hand blade, the mesenterium is cut backwards from the intestine near the intestinal wall. The separation process continues until the ileocaecale. Two ligaments are placed at the front of this ligament with an interval of 5 cm.

## When removing the small intestine:

- The presence of lesions on the omentum majus and the degree of fullness of the vessels is reviewed.
- The lymph nodes of the mesenterium with blood and lymphatic vessels are examined.
- The fullness of the intestines, diverticulum, dilatation and stenosis, such as whether there is a change in the diameter of the bowel is examined. It is necessary not to confuse intestinal stenosis with narrowing caused by rigor mortis.

## Removal of ovaries and large intestines

- As the colon parvum is removed in advance, the colon is removed with the large intestine, dorsal and ventral columns, after removal of the small intestine. **For this, firstly:**
- Cut the lig.duodenocolicum which connects the onset of the colon parvum to the duodenum. The cut-off of the duodenum is present during the removal of the small intestine. **The lig.duodenocolicum which is currently bound is cut by stretching.** In this way, the free end of the duodenum dissected from the column parvum is held by the right hand and under the large columns. On the other hand, he is caught with the left hand and pulled towards the stomach of the stomach and left out of the cadaver.
- Omentum majus and the connection of the pancreas with the columns are separated.

- Cut lateral to the left kidney and reflect the kidney medially. Extend the incision cranially and medially to remove the left adrenal gland, left kidney, and its ureter as a unit posteriorly and lay it over the anterior brim of the pelvis or paralumbar region

- Check major abdominal blood vessels for thrombi. Start at the beginning of the abdominal aorta and open it to its termination (internal and external iliacs). Open the coeliac, cranial mesenteric, and renal arteries and check the major branches of the cranial mesenteric artery .
- Sever the abdominal aorta caudal to the cranial mesenteric artery and remove this section along with the large colon from the abdominal cavity. When reflecting the large colon, do not remove the right kidney and adrenal with it. The right kidney and adrenal are partially under the liver and may be torn loose when removing the large intestine and the abdominal aorta.

- **Some of the jaundice and colon dorsale dextrum are separated from the abdominal wall.**
- These connections consist of a loose ligament. After separating the aorta part in the above figure, the colon and the suck are held by an assistant and pulled backwards out of the abdominal cavity. During this drawing, the connections are also solved by knife or by pulling them apart.

# Removal of stomach and duodenum

- The stomach and duodenum are removed after the intestines. The stomach is left-handed and lig.gastrophrenicum is cut while pulling backwards.
- Then the esophagus is pulled back a little and is cut about 10 cm from the stomach.
- In horses, the muscles in the cardia zone make a bow-shaped sphincter.
- For this reason, the esophagus does not need to be attached when the stomach is removed. It is then cut to lig.hepatogastricum and lig.hepatoduodenale. The duodenum is stretched with the left hand and is removed by a knife from the mesenterium. In the meantime, the connection between the duodenum and the right kidney is cut and the organ is taken out.



## **Removal of pancreas**

- Pancreas in horses are not seen without removing small intestines.
- The pancreas is adhered to the diverticulum of the colon dorsalen and also associated with the septum.

- **Removal of spleen**

The removal of the spleen before the stomach is the first organ to stand out when the abdominal cavity is opened. When the bowel is opened, the first organ is the spleen.

- Cut lateral and cranial to the right kidney and adjacent adrenal gland (under the liver) and reflect it caudally to the cranial brim of the pelvis. Reflect the kidney, adrenals, and ureters, and nongravid uterus caudally to the pelvic inlet and place them over the paralumbar region.
- A gravid uterus with a full-term fetus is examined in situ. The gravid uterus may be removed at the cervix.
- Sever the costal attachments of the diaphragm and remove the liver and diaphragm. Pelvic cuts and removal of urogenital organs, caudal gastrointestinal tract, brain, and spinal cord are the same as for the dog and cat

- **Removal of the liver**

The liver is cut off from the connections and taken out of the cattle. It is often preferred to remove it with the previously separated duodenum portion.

- **Removal of the right kidney**

To remove the remaining right kidney as the left kidney is removed out of the cadaver and the colon is removed. The kidney is rescued from this oily capsule. First, the artery and vena renalis are cut and then the urethra is withdrawn by pulling back towards the pelvis cavity. The right adren is then taken out for examination.