

## CLINICAL NOTES.

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## MALIGNANT TUMOUR IN A MULE.

THE following case only came under my observation *post-mortem*, but the history was very simple. An aged mule had for months suffered from a nasal discharge, which resisted all treatment, medical and surgical; during this time it was observed that the eyelids were swelling, and the sight apparently affected. The swelling of the eyelids continued until the eyes could no longer be opened, and all attempts at a thorough examination failed owing to the nervousness of the animal.

The appearance presented by the case was something exceptional,—a profuse nasal discharge, a snuffling almost snoring sound during respiration, and both eyes obliterated by enormously swollen eyelids. The appetite was good, but after months of treatment the animal was destroyed.

*Post-mortem Examination.*—The heart was enlarged, and weighed with its vessels 14 lbs.; the left auricle was surrounded by a growth which covered the pulmonary veins, and extended into the wall of the auricle, ventricular furrow, and part of the right auricle. The growth was pale and bloodless in appearance, and cut as firm as a lymphatic gland, which it somewhat resembled; its weight was 3 lbs. 13 oz.

At the bifurcation of the trachea was a large growth shaped something like a penis, and weighing about 8 or 9 ounces. In structure it resembled the material found in the heart, but possessed, in addition, a little dark pigment.

The eye on examination showed that the cornea in each was affected, the growth in one case having extended on to the eyeball, and both corneal surfaces were opaque. The eyelids were enormously thickened owing to the presence of a pale bloodless material, exactly resembling that found in the heart.

A longitudinal section of the head was made, and the upper surface of the soft palate was found to be affected with the same bloodless-looking growth found elsewhere, and the neighbouring parts both in front and behind this structure were invaded by the growth to such an extent as to materially reduce the calibre of the passage.

Above the pharynx were found on either side enlarged glands of a total weight of 3 or 4 ounces; the gland on the right side was very large. By their size and weight these glands must seriously have interfered with the respiration.

Within the ventricles of the larynx a thickening of the mucous membrane was caused by an invasion by the pale bloodless growth.

The sinuses of the face were healthy.

*Remarks.*—The case is rather a remarkable one. Of the nature of the growth I know nothing, but it was apparently malignant in character. Both the nasal discharge and difficulty in breathing were due to the diseased condition of the soft palate and surrounding structures.

## OEDEMA OF THE LUNGS?

A horse previously in perfect health was suddenly attacked one morning with dull abdominal pain; two hours later when I saw the animal it was collapsed and dying, great distress was present, pulse running down, nostrils much dilated; he crouched occasionally with pain, and fell twice. There was a little blood trickling from the nostrils, which we supposed to be due to a blow on the head inflicted when he fell. A little later there was some yellowish material running from the nostrils, and with it well-marked though small quantities of blood. He died within six hours of being attacked.

I suspected rupture of the stomach or intestines, but the abdominal viscera were quite healthy.

On opening the chest the lungs did not collapse, and in colour they were rather paler than usual; removed from the body they crepitated and crackled under slight pressure, and when cut into a perfect deluge of serum and froth flowed from the cut surface. This condition was most remarkable; wherever the knife went froth and serum followed. The trachea and bronchi were full of froth, while the entire lung substance was filled with minute air bubbles which could be seen under the tissue.

*Remarks.*—I have seldom made a more unsatisfactory *post-mortem* examination, for, though I have called the case œdema of the lungs, yet I candidly confess I do not know what it is. The abdominal pain and collapse drew my attention to the abdomen; I sounded the chest, but the lung sounds were only exaggerated in character.

Is there such a disease as acute pulmonary emphysema?

## HEART DISEASE.

This patient fell for no apparent reason, broke its knees, and in consequence came under my observation. During the first day of its admission the animal fainted five times; without the slightest warning it would collapse, and fall heavily to the ground. The patient always rose without assistance within a few seconds of unconsciousness, and when the excitement of rising was over I found the pulse to be beating fourteen to the minute; I verified this a dozen or more times.

On auscultating the heart the first sound was present, but “thumping” in character. The second sound was sometimes entirely lost, while at others there was only a mere trace of a sound; in either case this was followed by a vibration of the chest wall, and apparently of the heart wall, as if the organ were spasmodically contracting, but it is most difficult to describe the sensation imparted to the ear. There were no murmurs.

The first sound was accompanied by such a “thump” on the ribs that the beats of the heart could readily be counted at a distance by observing the impulse; there was jugular regurgitation as high as the junction.

During a fit the pulse was almost entirely lost at the jaw, but as consciousness returned the pulse improved, though for some time it remained markedly dicrotic in character; and it was, in fact, the only dicrotic pulse I have ever felt in the horse.

There is very little further history to the case ; the temperature was never above 102°, the pulse was generally 15 to 18, though one day it reached 36, and on another 42, while the respirations were 18. The patient fainted every day from two to five times, and by so doing got rather damaged.

The animal was destroyed under chloroform, air supply being as far as possible completely shut off. I expected the patient to fall an easy victim to the anæsthetic, but such was not the case, and the respirations ceased before the heart stood still.

The *post-mortem* examination was made at once. The heart was found enormously dilated, the long diameter of the left ventricle being 11 inches, and the same for the right. The ventricles were not only dilated ; the walls were atrophied so that the thickest part of the left was thinner than an ordinary right ventricle. All the valves of the heart were healthy. When the organ was removed from the body it was so flabby that it collapsed through its own weight, as if the muscular tissue possessed no tone.

*Remarks.*—I diagnosed this case as disease of the semi-lunar valves, and I am at a complete loss to explain the absence of the second sound of the heart, considering that the valves were perfectly healthy.

The slow pulse presumably was due to the length of time it took the ventricles to fill and contract. I should not know from this case how to make a more accurate diagnosis in the future.

#### STRICTURE OF THE SMALL INTESTINES.

This patient, a mare, was admitted to treatment for dull abdominal pain, which was continuous. She was never violent, always lying quietly on her side, occasionally taking a look round at the flank, but no attempt at rolling. When standing she stood stretched out like a horse about to urinate, then turning the nose round to the flank she would flex a hind leg and gently nibble the stifle ; this was repeated first on one limb and then on the other.

The symptoms lasted with very little intermission for thirteen days, during which time she had to be hand fed ; then for three days there was a marked improvement, the appetite returned, and she only lay down once or twice a day. On the seventeenth day there was a relapse, but the pain was not continuous, and during the intervals the animal fed. From the eighteenth to the thirty-second day the pain was less, the patient during the intervals looking lively and feeding well, but on the last named day it was observed that there was more lying down than usual. On the thirty-sixth day there was acute pain, complete collapse, cold dripping sweats, gurgling and eructation up the œsophagus, and death soon followed.

*Post-mortem Examination.*—There was a rupture in the greater curvature of the stomach about 10 inches in length. The anterior half of the small intestines were spotted all over with blood extravasations, which extended around the circumference of the bowel excepting at its mesenteric attachment.

The wall of the small bowels (anterior half) was several times its normal thickness, being as much as  $\frac{3}{4}$  to 1 inch in thickness. This increase in its substance was due to changes in the *muscular* coat and the submucous tissue, the latter in parts being jelly-like.

As the result of the enormous thickening of the muscular coat the lumen of the bowel was greatly reduced, and finally, by offering obstruction to the passage of ingesta, brought about rupture of the stomach by pressure from behind.

*Remarks.*—No microscopic examination was made of the thickened muscular coat, but it appeared to be simply hypertrophied, and this hypertrophical condition ceased quite abruptly about the middle of the small intestines. The mucous coat of the bowel was perfectly normal.

I have no explanation to offer as to the probable cause of the trouble, and I have never met with the condition before or since.

The case is a good example of rupture of the stomach from internal pressure and not external violence. Throughout the whole attack the animal took the greatest care of herself and always lay down very carefully. The attitude when standing and the nibbling of the stifles are curious symptoms.

Though I have described this case as stricture of the small intestines it is only so named after the most prominent *post-mortem* lesion; the actual disease existed in the intestinal wall, so that it might equally well be called hypertrophy of the muscular coat of the bowel.

#### CARCINOMA OF THE PLEURA.

This horse was admitted with symptoms of pleurisy, and lived twenty-two days. It is unnecessary to detail the clinical history of the case. It apparently ran the ordinary course of pleurisy, and when effusions occurred several tapplings were performed. The end came somewhat suddenly.

*Post-mortem Examination.*—The chest was full of yellow serum, clear and free from smell; on mixing with blood this fluid clotted. There was so much fluid in the chest that it was difficult to understand how any accommodation was found for the lungs.

On removing the chest wall it was found that the entire pleural surface, both costal and pulmonary, was covered with grape-like growths, which extended on to the diaphragm. These growths were lobulated, pink in colour, with a pearly lustre, and were larger on the anterior ribs than elsewhere; in fact, attached to the first ribs were growths of very considerable size. On section the growth looked and cut like lymphatic gland.

On the lungs the growth was confined almost entirely to the anterior lobes and lower edge, and in no case was the lung tissue affected, only the pleura; and from the edge of the lung the deposits were suspended. Between the lungs was a calcified lymphatic gland.

In the pericardium the most astonishing changes had occurred. The pericardial sac was enormously enlarged, lobulated on its surface from the presence of the pink pearl-like growth, and as unlike pericardium appearance as anything could well be. The interior of the pericardial sac was normal. The mass weighed several pounds, and extended into and implicated the mediastinum.

*Remarks.*—I took the disease for tuberculosis, but Professor M'Fadyean, who examined the growth, found it to be carcinoma.

This extraordinary specimen is cast in wax, and will be found in the museum of the Royal College of Veterinary Surgeons.