very disinclined to move, and when made to do so she walked in a very weak manner. On auscultation I found the heart to be beating tumultuously; the two sounds could not be distinguished, but each beat gave rise to a characteristic "gurgling" sound.

7th June. She was down, and we could not get her up. She has eaten nothing. Has had no passage of fæces. Surface temperature a little better, and rectal temperature 98·6° (this was probably due to a pint of rum administered last night). Pulse 100 and a trifle fuller. Breathing more frequent, laboured and abdominal, each respiration shaking the whole body. She died about half-an-hour afterwards.

Post-mortem examination revealed very extensive pericarditis. The pericardial sac contained about two gallons of very putrid pus. The parietal layer of the pericardium was much thickened through the deposition of layers of granulation tissue and coagulated lymph. The surface of the heart was covered with large vegetations (*cor villosum*), otherwise presenting the same surface appearance as the parietal layer. The heart muscle was pale and flabby. I could find no trace of any foreign body in the pericardium, but possibly there might have been some small object which started the process, but had now become disintegrated.

Remarks.—Considering the time the inflammatory processes must have been in progress, it is rather peculiar that the animal gave no previous signs of indigestion or heart failure. Another peculiarity was the suddenness of the attack and the rapid death, in view of the considerable time that the animal must have had the disease without showing any observable symptoms. I was unable to detect any intermittency of the heart-beats or any inequality of the pulsations.

A CASE OF VOMITION IN THE HORSE.

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THE following is the report of a case of vomition in the horse which I lately had under treatment, and which I consider uncommon from its apparent simplicity.

The literature on the subject though extensive still commands attention and is of interest, grave doubts existing in the minds of veterinary surgeons with regard to its value as a diagnostic aid.

On the 19th June I was asked to attend a sick horse which was vomiting its food. Appreciating the gravity of the report and the danger of delay, I paid a visit immediately.

The animal was a very aged one, standing 17 hands high, and had at one time possessed an exceptionally good constitution. I found it standing, the head held well up, feet firmly planted on the ground, the fore rather wide apart from the hind, as if on show, and decidedly disinclined to move, eat or drink.

The manger and what little was left of the supper was pretty freely besmeared with ingesta rather fluid in character. The temperature was 101° F., pulse full and frequent, respirations accelerated, mucous membranes reddish-yellow, defecated and urinated freely up to the time I saw it.

The information given was, that it appeared dull whilst working the day before, but ate and drank freely, and when suppered up at night showed no signs of approaching illness.

I had it moved a few yards, and minutely examined its throat, neck, chest, and rectum, but that the teeth were very bad was all I found.

Whilst making the examination it lowered its head and neck, drew in its flanks, and emitted through its nostrils from 4 to 6 ounces of a greenish, frothy fluid, immediately after which it gave a single cough, rather full and moist in character.

I had all but the greenest and softest food removed, and ordered a drink to be given, containing bicarbonate of soda and nux vomica. Almost the whole of the drink was returned in a short while, and I ordered a second dose to be given in an hour or two. This latter was kept down for a longer period. I then ordered hot linseed meal poultices to be applied every two hours to the abdomen, and every fourth hour a drench containing tincture of nux vomica and compound tincture of gentian was given. From the beginning of this treatment a change for the better took place.

On the 20th the temperature had gone up to 103° F. The mucous membranes were injected, and passing with the fæces was a quantity of stringy mucus. The animal had scarcely moved and had eaten nothing. It passed urine freely. I allowed linseed meal gruel *ad lib.* This treatment I continued for a few days with very satisfactory results.

It is generally advocated that in cases where there are no appreciable symptoms of structural changes having taken place, and it is simply a case of distension, a purgative should be given. Vomition will occur not only where there is no apparent distension, to judge from the quantity and quality of the ingesta ejected, but also where there is no closure of the pyloric opening, to which some attribute the occurrence of this act.

That the horse suffers from nausea, whether from a sea voyage, indigestion, the effects of medicinal agents, etc., and that nausea will produce vomition, is acknowledged; but who is able, and by what means is it possible for one, to come to the conclusion that anyone of the above, unassociated with such grave complications as engorgement, impaction with fermentation paralysis, is present? Not from the symptoms manifested, as one will get sweats, partial or otherwise, frequent respirations, increased frequency and weakness of the heart's action, with tremors of the muscles, in simple cases of colic, according to the strength and capabilities of the animal for bearing pain. Nor will one be other than disappointed if one expects to find indications of cerebral complications to depend upon, or signs of blood with the excrement to assist one.

There is proof of one thing only, and that is relaxation of the muscular loops of the cardiac end. To give a purgative under such circumstances I consider dangerous. Matters are made worse by increasing the nausea, rendering more acute the symptoms, and weakening the organ and patient.

It has not been shown, nor is there any indication, that at all times an opposite condition of things is in existence with regard to both ends of the stomach, or that another centre is in existence in the

medulla, or anywhere else, acting antagonistically. Rather the reverse.

In cases of impaction the least harmful thing a purgative appears to me to do is to swell the contents of the already overloaded stomach, and in cases of nausea to further excite an organ already made irritable. It will not cause the cardiac end to close, nor does it tend, in any way, when there is opening of the other end, to assist in putting the food into the small intestines.

How much worse must it be then, when we have engorgement with fermentation and relaxation on paralysis. The already weakened organ must be brought dangerously near rupturing itself.

Some months ago I attended a case manifesting all the symptoms of colic. It was exceedingly restless. On one occasion, as it lay or rather dropped on the ground, it emitted, principally through its nostrils, about half a pint of very soft ingesta. I had administered an alces purge of fomentations continuously applied, and relieved the pain by hypodermic injections of morphia and atropine. It died the next day. I made a *post-mortem* examination, and found the stomach impacted with dryish ingesta. Very little food in the small intestines, which were inflamed.

Another case to which I was called showed signs of very acute colic with slight flatulency. An alces purge was first given, and about two hours afterwards 8 ounces of linseed oil. Sedatives and anodynes frequently; hot fomentations continuously. Little or no relief did the poor brute obtain. It died the next morning. It had commenced to vomit about half an hour before death, the acts being nothing more than attempts, and following each other frequently. The *post-mortem* examination revealed the stomach thoroughly impacted and distended with ingesta, and ruptured, the rent being fully 8 inches in length. If relaxation from the cardia to the pylorus facilitates the passage of the contents, there was nothing to prevent it here. I am of opinion, from the symptoms at the last, that this was a case of vomition immediately following rupture.

I have seen cases of vomition with rupture of stomach and twist of the small intestines, death occurring from twelve to fourteen hours after the animal first manifested signs of illness, and the *post-mortem* has revealed the stomach distended with the food partaken of prior to, and that which it was eating at, the time of first attack. The medicine soaked into the ingesta, and some of it had passed through with a small quantity of that into the intestines.

The symptoms in these cases at the last are exceedingly distressing and painful to witness.