Veterinary.

For the CANADIAN LIVE-STOCK AND FARM JOURNAL Strangles or Distemper.

BY F. C. GRENSIDE, V. S., GUELPH, ONT. (Concluded.)

Although this disease appears to exist all over the world, or wherever horses are kept, and is compara tively speaking a prevalent ailment, so common that almost any one who has had any experience at all amongst horses, has had opportunities of witnessing attacks of it, and it has been written about and investigated by the best veterinary talent in the world, still we cannot say that the exact nature of the trouble is understood. It would undoubtedly be in teresting to have its true nature elucidated ; but it is questionable if more precise knowledge regarding it were possessed, whether we would be any more capable than we are at the present time of controlling it, either in the way of prevention or cure. Certainly some morbid matter exists in the blood, deranging the vital fluid, and thus causing a general disturbance of the system.

It has not yet, however, been clearly demonstrated what the character of that morbid matter is ; whether it is living matter or a chemical substance or whether it is developed or generated in the animal economy, or whether it is an extrinsic product. An old theory is, and one which some believe in at the present time, that there is an accumulation of effete material in the system, due to sluggish working of those excretory organs whose office it is to remove used up material. This theory, however, can hardly be reconciled with the fact that strangles is communicable from the diseased to the healthy; for it has been observed that on the introduction of a subject of distemper into a healthy stud of horses, that the disease has spread, and attacked animals of all ages. Unless this suspected effete material assumes a definite form, or in other words becomes an organized poison, it is hardly conceivable how it can be transmitted from one animal to another ; and if we admit that there is an organized poison generated in the system, then we come in opposition to what has been proved, viz., that life never generates spontaneously.

It is much easier to recognise that strangles is due to a living germ, like some other diseases have been proved to be, and that this germ exists here and there, and is readily transplanted from one place to another, and that if it comes in contact with a suitable subject it may attack it.

We find that colts are usually most susceptible, and we can readily understand that young, growing and unbardened animals would prove suitable soil for a parasite that successfully attacks the equine race under favorable conditions.

It has been found that the germs of diseases growt very virulent on passing through the system of a weakly animal; and this may account for the fact that the young, growing and weakly colt is usually the one first attacked in a stud, and that the matured show a strong resisting power, only succumbing to the action of the virus of the disease, when it has assumed unwonted activity.

Although we have very strong evidence of the contagiousness of strangles in some instances, still there are many cases in which there does not seem to be the slightest likelihood of it having been conveyed directly from the sick to the healthy. Assuming that the poison is a living one, we can understand that the living particles which form it exist everywhere, and only require suitable conditions in order to bring them into activity, and recder them capable of making a

successful attack upon susceptible subjects. Naturally one would assume that any accumulation of the excretions of horses, however slight, would form a suitable habitat for the germs of a horse disorder to lurk in, and become active, and if any inhabitant of a stable was in a susceptible condition, the germs on entering the system of such a subject would flourish at the expense of the health of the victim. The poison seems to remain latent in the system for a varying time, but as soon as evident symptoms of illness are manifest, fever is present, and the temperature remains heightened until the abcess matures and bursts, then the fever soon subsides, and, as a rule, the subject regains his health.

Some consider the restoration to health is due to the poison being eliminated from the system with the discharge from the abcess; and that this explanation accounts for the fever not leaving until the abcess discharges. But the knowledge gained from the experience of some other diseases would indicate that the poison had spent itself, and the maturity of the abcess shows that the ailment has run its course, and that the poison which has caused it has nothing more to feed on in the exhausted system, and consequently must leave it. There are other diseases to which the lower animals are subject, which are due to a specific poison, and that give rise to no lesion that would act as an outlet to the morbid matter, and consequently it must be discharged through some of the ordinary excretory channels, as the bowels, kidneys, lungs, or skin. This appears to be the case in strangles.

After the poison leaves it, then the system has to overcome the evil results of its presence, which are mainly depletion, and the changes which have taken place in the upper air passages, sometimes showing themselves by sonorous breathing, as roaring, whistling, etc. The blood becomes impoverished and altered from the action of the disease virus upon it, and to such an extent in exceptional cases, that restoration to health does not occur after the elimination of the poison; but more serious blood disorders follow as sequels to distemper.

In the majority of instances recovery occurs. The circumstances which particularly influence the course and termination of an attack of strangles, are the subject, whether strong or weakly, the surroundings and treatment, and the character of the attack, whether benign or malignant. In some cases, where the subject is vigorous and the surroundings good, the disease assumes unwonted virulence, which would indicate that the activity of the germs varies under different circumstances. There is no disease to which horses are heir that demonstrates so forcibly the importance of attention to veterinary hygnene, particularly the purity of the air and cleanliness.

Experience teaches us that where horses are overcrowded, or in other words have not sufficient space from which to get their air supply, or if the droppings from the inhabitants of the stable are not frequently removed, but allowed to decompose and give off unwholesome emanations, the air becomes charged with impurities which are taken into the lungs, and thence to the blood, in every act of breathing. Thus the already pure vital fluid becomes more poisoned, readering the attack more severe and the recovery more prolonged, or perhaps bringing about a fatal termination. It is 'particularly essential that the stable in which distemper patients are kept should be roomy, the impurities allowed to exit through the roof, and fresh air introduced without the production of draughts. In cold weather this may cause the temperature to be unduly low; but this can be compensated for by clothing the body very warmly. A loose box is

most conducive to a patient's comfort. Good, richfood should be allowed at will, and the appetite tempted by a variety of diet, a portion of which should have a laxative action, as bran mash, boiled grain, or roots. Cold water should be constantly before the patient, in quantities of half a pailful at a time. Three times a day half an ounce each of nitrate of potash and sulphate of soda may be mixed with the drinking water. If the patient will drink skim-milk, it is beneficial.

As soon as the abcess begins to soften it should be opened. Poulticing will encourage the formation of matter and lessen the soreness of the jaws. If there is much soreness of the throat, as indicated by protrusion of the nose, difficult, sonorous breathing, andcough, the application of a stimulating liniment, asthinly mixed mustard and water, to the surface roundthe throat, will be beneficial. As soon as the acute symptoms subside, tonics and good food should be attended to.

Sudden Death of a Young Bull.

EDITOR CANADIAN LIVE-STOCK AND FARM JOURNAL

SIR, —Quite recently I lost a valuable Shorthorn bull. In the morning he was all right, ate his dinner the same day. When the man cleaned him he was quite playful. The same person went in about four o'clock to take him out to water, and just as he entered the stable the bull dropped dead. When opened his heart and liver were perfectly white, with considerable fat about the heart. Can you tell me the cause of his death?

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ANSWER BY F. C. GRENSIDE. V. S., GUEL-PH, ONT. From the sudden death, I would infer that there had been some diseased condition of a blood vessel, and that it had suddenly given way, allowing escape of blood. The correspondent says nothing about finding any escaped blood, so that possibly the rupture may have taken place in the brain, and caused pressure on the brain substance, with arrest of its functions.

The Farm.

For the CANADIAN LIVE-STOCK AND FARM JOURNAL

What we Have Learned in Referenceto Grain the Past Season.

BY THOS. ELMES, GRAIN EXPERIMENTER, PRINCE-TON, ONT.

I. That it is imperative to sow all spring cropsearly, on well tilled, well drained soil, if we are toreasonably expect success.

2. That all old, worn out, late ripening varieties are sure to be overtaken by rust and blight, and will not pay expenses ;: while all early, strong, vigorousvarieties are sure to be a success.

3. That it is useless to sow spring wheat in Ontario unless it is done before the 28th day of April, and wemust also take particular care in the choosing of the varieties we select for seed, as our past seasons havebeen particularly trying to this cereal. We must, therefore, select varieties which are strong, vigorousgrowers, with sap vessels well protected by fibre of straw, so as to resist rust, and it is also advisable to have bearded varieties, as these are not so liable to blight. In all cases the land must be fall ploughed, or failure is almost certain.

4. That barley has been the best paying crop this past season, and in all probability will be poorest next, as all are determined to sow a large acreage, and over production will doubtless be the consequence.

5. That peas must be sown early, as all early sown were a good crop, or nearly all, while those parties-

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