On examining the jaw an area was plainly visible which had all the ear marks of an actinomycotic infection. The accompanying photograph shows the area involved.

There was a well defined sinus, and on pressure a profuse purulent discharge was forthcoming. The tentative diagnosis of actinomycosis was strengthened by the nature of this discharge. It was thick, of a greenish yellow colour and of a gritty nature. Closer examination of the pus disclosed the typical granules and these had been previously observed by the owner who described as "grains."

Under the miscroscope these granules, when crushed, revealed the typical rosette form of the "ray fungus."

The treatment consisted in curetting the area as far as possible and packing the cavity with gauze soaked in Tincture of Iodine. Internal treatment consisted in a daily dose of potassium iodide, one dram.

After a week the discharge had ceased, but with no improvement in the bone destruction or condition of the animal, and the owner becoming alarmed, disposed of the animal before I had the opportunity to ask for a post-mortem, so that I am unable to report on the structural changes.

References

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Poisoning of Horses by a Local Application

By C. C. MacLean*

IN August the author was urgently summoned by the owner of a farm residing near Wordsworth, Sask. Here eight horses were found pacing about the yard and apparently in great distress.

History.—The owner stated that he and his son, following a common practice in that community, had smeared areas of their horses' bodies with used crank case oil. This material was in general use in the district as a fly repellant. Eight animals were smeared about 8 o'clock in the morning. In four-horse outfits, they were harnessed to binders and put to work. The morning was bright, sunny and extremely hot. In approximately one half hour the horses showed evidence of uneasiness. Little attention was paid to this, however, and the work was continued for another thirty minutes at which time the animals became visibly ill, with swelling commencing to appear upon those parts of the body where the applications had been made. They were immediately unhitched and with difficulty driven to the farm yard one-half mile distant. Upon arrival professional aid was sought and forty-five minutes later an examination was made. By this time two animals were not only in great distress but were evidently beyond help. They died a few minutes later. Each of the remaining six horses showed great uneasiness, walking back and forth and generally restless. The pulse was approximately 70 and the temperature varied from 101 to 102°F. The skin, especially back of the neck and on the rump was oedematous. It became approximately an inch thick.

Management, Treatment and Discussion.—The animals were removed to a shady place and the oil immediately washed off with soap and water. A heavy sodium bicarbonate suspension was applied to the affected skin surfaces and sedatives were given to those animals showing the most distress. That evening two animals died. The four remaining animals gradually improved and recovered.

When the crank case oil was examined about a quarter inch of straw coloured fluid was apparent on the surface. It was supposed that this light material was distillate that had leaked through

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the piston rings. A sample was forwarded to the University of Saskatchewan and when chemically examined was found to contain a high percentage of sodium arsenate. This drug is extensively used in the community as a grass hopper poison but the owner was unable to account for its presence in the crank case oil.

The known toxicity of arsenic when applied to considerable areas of the body surface is emphasized by the cases above described. Also is shown, the absence of observable evidence and the difficulty of accounting for some of the conditions met with in general practice. Thus in these cases there was no reason to suspect the presence of an arsenical compound in the motor oil. Also is shown the necessity of collecting all available data even after the affected animal has died or recovered if one is to know precisely the nature of some of the unusual cases.

Abnormal Sex Behaviour in a Dog

(*A second report*)

By H. D. PRICHETT

UNDER the above title, the author previously reported a case which came under his observation. The report which follows deals with a similar sex manifestation in another dog.

A pedigreed male Irish terrier, eleven months old, was hospitalized for the treatment of alopecia, anorexia and inanition. The animal was in generally poor physical and mental condition. A degree of lassitude was present which closely approached that of prostration. There was no response to commands by the owner, and comprehension appeared to be quite poor.

The reflexes, however, were accentuated, a slight stimulus being required, such as merely handling the animal or a part of its body, especially the sacro-pelvic region. The animal had been fed on an exclusive diet of canned prepared dog food. The temperature was elevated to 104°F. Faecal examination revealed a moderate infestation of *Dipylidium canium*. There was a purulent discharge from the prepuce and the glans penis was extremely hyperaemic, but apparently of a non-pathological origin, as no local lesion was discovered. It was probably due to trauma, as will be appreciated further on; the balanitis being of only secondary importance. Stimulation of the rectum by the insertion of a thermometer, or digital palpation of the prostate gland, or manual manipulation of the external genitalia, incident to clinical examination, promptly resulted in an acute engorgement and erection. The glans penis and bulbus glandis increased many times in size and became very firm. This subsided almost as quickly as it occurred, upon the removal of the aforementioned stimuli.

This animal is known to have attempted copulation with a female goat (not in oestrum); but, due to the great difference in physical stature, actual contact was not effected. The mechanics of animal coitus were performed by the dog and was climaxed by orgasm; as the owner stated that he had knowledge of an ejaculation occurring on one of these occasions, the performance being permitted to continue that far to satisfy himself that such an occurrence was possible. The writer was heretofore of the opinion that such attacks by an animal of one species upon the body of an animal of another species did not occur, and inquiring clients had been advised accordingly on more than one occasion. Such abnormalities doubtless have been observed by others, but if so, the writer is unaware of the existence of a record

It is to be regretted that this case was not available for further observation, since the owner insisted upon immediate destruction, as he did not wish to "expose his family to further embarrassmen". Consequently the termination was by euthanasia, and the most valuable phase of this case was therefore lost.

No pathological changes of the entire genito-urinary system were found on necropsy. Traumatism of the spinal and cranial nervous system was not present; neither was there evidence of spinal luxation or fracture callus that could in any way have brought abnormal pressure to bear on any ganglia or plexus.

The question arises in the mind of the writer after the analysis of the facts obtained on study of this and the former case reported, whether these animals suffered true neuroses, or whether they were the unfortunate victims of malicious or psychopathic persons. Hesitancy is admitted in accepting either conclusion.

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References

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