Dermoids in Calves

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1 Black Tongue in a Dog. On March 24, 1943, a one and one-half year old Cairn Terrier was presented to the Stange Memorial Clinic. The history presented with the patient was that the dog had been vomiting, was not eating, and had a diarrhea. The dog had been sick for a couple of days. It was reported that the dog had had canine distemper when a pup.

Upon examination the dog showed a diffuse erythematous stomatitis with some ulceration of the gingiva at the dental line. Also there was an extensive mottling of the dental enamel, which characteristically showed the effect of distemper before eruption of the permanent teeth. A copious, chocolate colored insalivation was present and a particularly offensive odor was noted on the breath. From the history and present symptoms, the condition was tentatively diagnosed as black tongue.

Also the examination revealed that the left anal gland was enlarged and inflamed. The gland ruptured during the next day, and hemorrhagic pus exuded from the fistula. This infected anal gland was treated in the customary manner.

Treatment of the black tongue consisted of administering vitamin B complex subcutaneously. During the first two days 10 cc. were administered daily followed by 5 cc. for each of the next eight days. The dog made a complete recovery and was discharged on the eleventh day after entrance.

The vitamin B complex used in the treatment contained nicotinamide, thiamin hydrochloride, and riboflavin. This type of product is specifically indicated as black tongue is a deficiency of nicotinic acid. However, there is often a deficiency in the other members of the complex, so they are also included in the treatment. The other members of the complex serve as catalysts to the nicotinic acid.

Black tongue is a condition which is becoming increasingly prevalent, because it is more difficult to procure proper food for dogs. It has been demonstrated that the presence of fresh meat, fresh milk, eggs, liver, kidneys, and spleen in the diet will prevent the occurrence of this condition. The addition of dried yeast or other vitamin supplements will help prevent it.

—Don DeVailos, '44

2 Dermoids in Calves. On the morning of April 1, 1943, four Hereford calves varying in age from three to ten days were presented at the Stange Memorial Clinic. Three of them were females; the other was a male. All were in excellent general condition. The history revealed that the calves were having eye
trouble. Examination of the eyes disclosed peculiar growths at the sclero-corneal junction which had the appearance of skin furnished with a hairy covering. Other symptoms included erythema of the eyelids and excessive lacrimation with consequent formation of crusts around the eyes. Two of the calves were bilaterally involved; the other two each unilaterally involved. In two cases the hairs were brown in color; in the other cases they were white. The growths did not seem to impair the vision of the calves except for the mechanical interference and irritation they produced.

The owner reported that the dams of these calves were western cattle purchased through a commission house and to his knowledge were not related. Although the same bull had been used in the herd for six years, he had not encountered this condition in any of his calves previously.

A diagnosis of dermoids of the eye was made, and surgical removal was immediately undertaken. Each of the four calves was restrained on the table in lateral recumbency. Then the eyes were anesthetized by three applications of 4 percent butyn at intervals of two minutes. Excision of the growth was undertaken by grasping the clump of hair with a pair of forceps and dissecting the growth away with a Bard-Parker scalpel. An assistant bathed the eye continuously with a stream of physiological saline solution to prevent blood from interfering with the operation and to keep the cornea from becoming desiccated. The growths proved to be very tough and were removed with some difficulty. Care was exercised to prevent damage to the cornea and sclera with the scalpel. The growths were all successfully removed with a minimum of trauma to the surrounding tissues. The amount of hemorrhage was insignificant.

The calves were taken home immediately following the operation. Merthiolate ophthalmic ointment (1:5000) was dispensed to the owner for post-operative treatment to prevent irritation and infection. The owner has reported that since the operation two calves had been born on the farm, one of which had this same type of dermoid.

Histological examination of the growths showed them to have the structure of a normal eyelid including epidermis, hair follicles, and sebaceous glands.

References Limited

The literature concerning dermoids is rather sketchy. According to Nicolas, these dermoids are not rarely observed in animals because Kitt (1901) was able to collect a number of cases occurring in the ox, dog, sheep, pig, and cat. The most common site of their appearance is the sclero-corneal margin in the temporal angle of the palpebral fissure. They have been found attached exclusively to the cornea and in some cases nearly cover it. They have been seen in the nasal angle and sometimes extend to the membrana nictitans.

Nicolas also states that dermoids are in some cases accompanied by other congenital anomalies and may be transmitted to the offspring. He suggests that their formation may be explained by a fetal inflexion of the external layer of the blastoderm (Remak), or by an adhesion of the amniotic sac which later stretches and breaks (Van Duyse). Dermoids are considered by some to be a reversion to type because in some of the lower animals the cornea is normally covered by true skin.

REFERENCES

2. Ibid. —James B. Flanary, fall '43