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# Post-Vaccinal Paralysis Following Anti-Rabies Vaccination

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**Post-Vaccinal Paralysis Following Anti-Rabies Vaccination.**

Following the inoculation of rabies vaccine there occasionally occurs paralytic symptoms in man and dogs. More rarely do these symptoms occur in the former. In dogs this paralysis usually affects both of the posterior limbs. Occasionally however, only one of the two is affected. This paralysis appears usually not later than three weeks following the vaccination.

In the more common and favorable cases in dogs, improvement over the paralytic condition gradually takes place from the second to the tenth day after the paralytic condition is observed. During the attack the appetite is maintained. However, there are usually disturbances in defecation and urination.

In unfavorable cases the paralysis extends anteriorly in a manner simulating the Landry type paralysis seen occasionally in man undergoing an anti-rabies treatment. Death in this case is the usual result from paralysis of the respiratory center.

On March 20, 1949, a black, female, Cocker Spaniel, 1-year-old was admitted to Stange Memorial Clinic. The history presented by the owner stated that the dog developed incoordination in movement and posterior paralysis the preceding evening. Further history revealed that the dog had received an anti-rabies inoculation two weeks prior to the appearance of these symptoms.

Examination revealed that slight movement was still present in the right rear leg and none in the left rear leg. The dog was unable to stand. Along with the above symptom of paralysis, the patient displayed a condition of hyperesthesia over the whole body. The temperature, pulse and respirations were within normal limits.

A diagnosis of post-vaccinal paralysis following the rabies vaccine injection was made.

Since posterior paralysis often results in disturbances in defecation and urination, beginning treatment consisted of the oral administration of a No. 11 gelatin capsule of magnesium sulfate to evacuate

fecal material which might become retained and cause a subsequent toxic condition in the animal. The capsule and its contents were vomited by the animal and further treatment for that day was discontinued.

The following day the paralysis appeared more extensive. The whole posterior half of the body now took on a flaccid condition.

An enema was given and the colon was freed of its fecal content.

On the twenty-second day of March it was noticed that the paralysis extended still farther forward and the animal now was unable to lift her head.

The next five days offered no visible improvement of the paralytic condition. The patient remained recumbent and hyperesthetic. The daily treatment now consisted of expressing urine from the animal. The urine was very concentrated and had a foul odor. Also in an effort to relieve the paralytic and hyperesthetic condition the daily intra-muscular injection of 10 mg. of thiamine hydrochloride was begun. The patient when supported would drink a large quantity of water each day.

On the twenty-seventh day of March marked visible improvement in the patient's condition had begun. She now appeared more alert and was able to lift her head and the forepart of her body to a slight extent. The thiamine therapy was continued.

On the thirty-first day of March the patient was able to rise and remain standing for a short while without support. Her hyperesthetic condition was considerably reduced.

The following day the dog was removed to the exercise pen where she moved about using all four feet but demonstrated incoordination and weakness in the rear legs. She now defecated and urinated of her own accord.

The patient has shown daily progressive improvement over the incoordination and weakness until April 11, the date of this writing. She now moves about very freely but still demonstrates a slight weakness

in the posterior extremities. The thiamine therapy is being continued.

In view of the progressive recovery shown by this patient a favorable prognosis is offered.

R. M. Hacecky, '50

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### Bilateral, Corneal, Dermoid,

### Cysts.

A 7-month-old Angus bull was admitted to the Stange Memorial Clinic, April 12, 1949. The bull had a proliferative epithelial growth, about  $\frac{3}{4}$  inch in diameter, covered with hair on each eye. In other respects, the bull was apparently normal.

Each growth was attached to the sclera and extended over on to the cornea on the lateral side. Normally, growths of this type cause considerable conjunctivitis from the irritation by the hair. However, conjunctivitis was not present in this case because the growth was quite high and protruded between the eyelids. Therefore, the hair did not come in contact with the conjunctiva enough to cause irritation.

After it was determined to surgically remove these growths, the patient was restrained on the table in right lateral recumbency. The conjunctival sacs were irrigated freely with 2 percent boric acid solution. Four percent butacaine sulfate solution in sterile water was applied next for anesthesia. The butacaine sulfate was

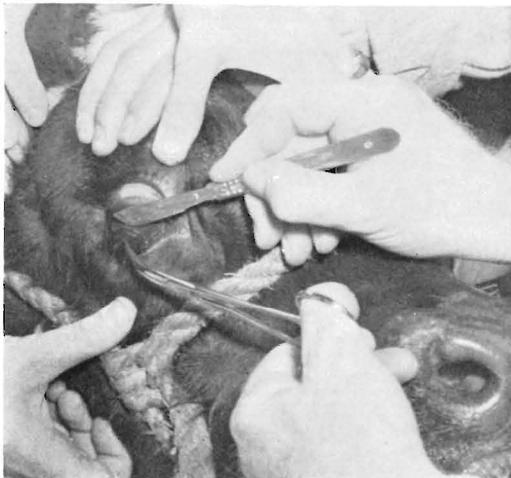


Fig. 1. Removal of right dermoid cyst.



Fig. 2. Removal of left dermoid cyst.

dissolved in plain sterile water because it will precipitate out of solution in physiological salt solution. With an eye dropper, several drops were placed in each eye and a pad of sterile cotton placed over the eye to hold the butacaine sulfate in place. This process was repeated three times so that satisfactory anesthesia could be obtained.

The eyelids were then held open by an assistant. The dermoid growths were grasped with a small pair of hemostats and then carefully dissected loose from their attachments with a very sharp, thin-bladed scalpel. Care was taken so that the interior of the eyeball was not opened.

Slight hemorrhage developed but was not of any significance. The eyes were then again irrigated with 2 percent boric acid solution and finally an ophthalmic ointment containing merthiolate 1:5,000 was applied. The owner was given a tube of the ointment and instructed to place some in the conjunctival sacs once a day.

No explanation for these growths has been determined and there was no history of inbreeding, other than that which is genetically present in most purebreds. However, Ayres reports that dermoid cysts are commonly found along the lines of fusion of embryonic structures. Lesbre reports finding dermoids of the conjunctiva which are transformations of its epithelium and are characterized by a