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Jack H. Oak
Iowa State University

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Luxation of the Atlanto-Axial Articulation in the Greyhound.

March 21, 1961 marked the end of a continuous 90 day clinical treatment of a Greyhound suffering from a dislocation of the atlanto-axial articulation.

The involved three year old female Greyhound was presented for initial examination on December 20, 1960. The animal was in a state of complete paralysis from the neck region posteriorly.

Two days earlier the animal had been hunting rabbits and apparently had suffered severe trauma to the atlanto-axial region of the neck by running into a fence. The animal was found lying along the fence row in a "state of paralysis."

Upon initial examination, the dog appeared to be in fair condition. A slight spinal reflex was elicited from all four legs but all the muscles posterior to the neck region appeared to be in a state of tonic spasm. Crepitation could be palpated in the atlas-axis area. Although the first radiograph taken of the neck region was somewhat indistinct, a tentative diagnosis was made. Torsion of the atlanto-axial joint had allowed the dens of the axis to be driven too far into the atlas causing excessive pressure on the spinal cord. Positioning the animal for a second radiograph apparently reduced the condition as the second radiograph revealed a normal articulation of the atlas and axis.

Cage rest was the principal treatment. Canned dog food (P/D)* and water were hand fed to the animal. The dog was turned several times per day. A friendly disposition and a fair appetite were shown by the Greyhound.

By the end of the second week, the animal was regaining slight control of the appendages but was showing weight loss. Decubital ulcers were beginning to appear on both scapular regions. These ulcers were treated with a drying powder and the dog was placed on a cushion.

In the third week the dog showed marked improvement in that she could rise to her sternum and eat. When the dog was manually held up, she could put pressure on her legs but lacked control of them. A regime of periodic manual muscular massage was instituted in hopes that some tone and coordination could be restored to the dog’s legs.

Weight loss continued and the stools became soft, so a fecal sample was checked for parasites. An infestation of Ancyclostoma caninum was revealed. Suitable treatment was instituted to remove parasitic infestation.

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*Hills' Packing Company (Topeka, Kansas).
the hookworms. A pancreatic enzyme activity test was run on a fecal sample and was found positive. The ration of the animal now consisted of two cans of P/D, hematinics and B-vitamins.

The decubital ulcers were now the biggest menace to the dog even though a wire mesh platform was being used to relieve pressure on the ulcerating areas. Radical curetting and suturing of the skin over the ulcers met with little success.

An attempt was made by the dog at the end of the eighth week to stand but failed. The dog could support herself for a few seconds after being helped to her feet.

Slowly but surely the dog gained its footing and could walk a few steps by the eleventh week. The flexor tendons of the right front leg appeared to be severely contracted but with the further return of motor impulses to the leg this condition gradually corrected itself.

Summary: Patience on the part of the owner and attending veterinarian can occasionally result in nearly complete recoveries of initially supposed hopeless neurological disorders. Time is of the essence in bringing about a satisfactory response.

Jack H. Oak, '62

Gastric torsion, a rarely seen condition, is a 90-360° twisting of the stomach upon itself, usually from left to right. It occurs most often in the large breeds of dogs such as the Great Dane, the St. Bernard and the Bloodhound. The common causes are the ingestion of large amounts of food or water, violent exercise or violent vomition. The typical clinical picture is the sudden onset of colic-like symptoms with a tense abdominal swelling just posterior to the rib cage. This abdominal swelling in turn will cause dyspnea, cyanosis and may develop into shock.

A three year old female English bull dog with a fractured right hind leg was referred to the clinic on November 9, 1960, apparently having been hit by a car. Two radiographs accompanying the dog showed an oblique fracture of the tibia with a splinter on the anterio-medial side.

Surgery was performed the following day. The dog, weighing 43 pounds, was anesthetized with sodium pentobarbital and an open reduction was performed.

The animal recovered satisfactorily from anesthesia. Three hours after surgery the mucous membranes were pink, respiration were 16-20 per minute and the pulse was strong.

At 8:00 a.m., November 11, the dog was up and walking around outside its cage. She appeared thirsty and drank readily when offered water. She was resting on her sterno at 9:00 a.m. Upon routine examination at 10:00 a.m. the dog was found lying on its side with a greatly distended abdomen. The mucous membranes were light pink; the respirations were short and rapid at 32 per minute; the heart rate was 160 per minute; the pulse was weak and the temperature was 102° F.

Immediately the abdomen was tapped with a 2 inch 16 gauge needle and air was forced out. Ten milligrams of prednisolone1 was injected intravenously. Oxygen was administered by placing the outlet tube in the dog's mouth. The heart beat ceased so 1.5 cc. of 1-arterenol2 was injected intracardially and 0.5 cc. of pentyenetetrazol3 was injected subcutaneously. Artificial respiration was initiated and continued for over an hour. Another injection of 2 cc. of 1-arterenol was administered, but to no avail.

At necropsy a diffuse necrotic esophagitis was found about 12 cm. from the pharynx. The stomach was distended to several times its normal size. It contained a large amount of fluid. There appeared to be a 180° torsion, but no complete obstruction of the pylorus was noted. A hemorrhagic duodenitis was present, probably due to hookworms which were easily seen on the mucous membrane. There was almost complete bilateral atelectasis of the lungs with a few small areas of emphysema due to pressure exerted upon the pleural cavity by the greatly distended stomach.

The cause of this unusual condition was undetermined.

Dan Allen, '61

1. Delta Cort — Upjohn
2. Levophed — Winthrop
3. Metrazol — Knoll

Iowa State University Veterinarian