

CLINICAL MEDICINE

Index

1. Displaced Abomasum in the Bovine 193
2. Castration of a (Gelding?) 195
3. Osteochondrosarcoma .. 195
4. Congestive Heart Failure 197
5. Fracture of the Distal End of the Femur 197
6. Hyperplastic Prostate Gland in Perineal Hernia of Dog 198

1

Displaced Abomasum in the Bovine. The morning of Feb. 5, 1957, the ambulatory clinician of I.S.C. Division of Veterinary Medicine answered a call on a down cow.

This 8-year old cow was one of the top 10 producing Guernseys in her class in the United States in 1956 by D.H.I.A. test. She was reported normal before calving. She had calved normally the previous night, Feb. 4, and had cleaned normally. She had gone down during the night and was unable to get up when found in the morning. The temperature was 99.4°F. She was greatly depressed and did not eat or drink. The respiratory rate was normal with a slight expiratory grunt. The heart rate was normal. There was no passage of feces or urine. The eyes were dull but not sunken.

Parturient paresis was suggested by the above history and symptoms. The cow was treated with 500 cc. of 23 percent calcium gluconate solution intravenously. Following therapy the cow brightened up somewhat, but the response was incomplete.

The evening of Feb. 5, the cow's condition was not a great deal improved. Urine was obtained by catheterization and the Ross Test for ketones was negative. The cow was retreated with 500 cc. of 23 percent calcium gluconate solution intravenously and she again responded only slightly.

The morning of Feb. 6, the cow's condition was worse than at the time of the first call. It was concluded that this was

not a case of milk fever. The cow was again thoroughly checked. The udder was found to be normal. The uterus was apparently undergoing normal involution and the cervix was nearly constricted to normal. The urine was found negative for ketones and albumin. The temperature was 99.5°F. and the pulse rate and respirations were still normal.

Through a process of elimination mastitis, metritis, obturator paralysis, traumatic gastritis, perforation of the uterus, albuminuria, and ketosis were for the most part ruled out. This brought up the question of displaced abomasum. Since the cow was down and in a weakened condition it was decided that exploratory surgery would be of questionable value.

Due to the value of the cow and the desire of the owner the animal was treated symptomatically.

February 6 she was given intravenously, 500 cc. of solution containing 11.4 Gm. of calcium, 2.75 Gm. of magnesium, 88.5 Gm. of dextrose and a trace of

phosphorous. That evening she was given intravenously, 500 cc. of solution containing 140 Gm. equivalent of calcium gluconate, 75 Gm. of dextrose, 50 Gm. of magnesium gluconate and 6.25 Gm. of phosphorous along with 200 mg. of amphetamine sulfate intravenously.

February 7, the cow received 100 mg. of Sterane® intramuscularly in the morning and 500 cc. of 50 percent glucose intravenously in the evening.

February 8, the cow was given 500 cc. of 23 percent calcium gluconate intravenously and one can of Rumide® (Pitman-Moore) in 2 gallons of warm water via stomach tube. That evening she received 500 cc. of 50 percent dextrose.

The next 2 days therapy consisted of 500 cc. of 23 percent calcium gluconate alternated at 12 hour intervals with 500 cc. of 50 percent glucose.

The cow's condition gradually worsened and on Feb. 11, euthanasia was recommended. With the owner's consent necropsy was performed and the abomasum was found displaced to the left side of the rumen and full of decomposed ingesta and rather bloated. The forestomachs were full of ingesta while the intestines were empty. No other findings were reported.

Throughout the course of this condition the cow's temperature ranged between 99° and 100°F. and there was no defecation. Urination was present from the second day of treatment until the end. Rumen motility was slight to absent throughout as was the appetite. The cow drank only small quantities of water in the later stages.

The majority of the cases referred to the clinic at Iowa State College have initially been suggestive of ketosis. The unusual thing about this particular case of displaced abomasum was the degree of depression and apparent paralysis of the limbs along with the failure of ketone bodies to show in the urine even though the cow must have been living on her own tissues.

The incidence of displaced abomasum seems highest in post parturient cows where the uterus apparently pushes the

rumen dorsally and allows the abomasum to slip under the rumen and be pushed to the left side at parturition. This offers no explanation for its occurrence in bulls, steers, or virgin heifers where it has also been reported.

Displacement of the abomasum, although not extremely common, is being diagnosed more frequently than in the past. This may be due to more exploratory laparotomies being performed, or the realization of the presence of this condition in vague indigestions.

Symptomatology of displaced abomasum is quite vague. Indigestion is about the only consistent finding. Insidious onset of symptoms with inability to definitely pin point the time first noticed is common, but not the rule as shown by this case. All cases have been afebrile. The extent of displacement governs the appetite and defecation which may range from a depressed state through intermittent anorexia and diarrhea to complete obstruction.

Sometimes a secondary acetonemia and acetonuria develops which is unresponsive to intravenous glucose injections. There may be intermittent tympany. Peristolic sounds may be heard on auscultation over the anterior ventral region of the rumen on the left side. In this same region tympanitic tones may be detected on percussion if the abomasum contains a sufficient quantity of gas. Rectal palpation may disclose the rumen displaced 4-5 inches to the right, and if the abomasum is excessively distended it may also be felt. The only positive means of diagnosis are laparotomy or necropsy. This is not to say that a very suggestive diagnosis can not be made, because on April 27, 1957, a cow was operated upon and on April 29, 1957, a bull was operated upon. Both were sent to the clinic for laparotomies. In both cases the veterinarians had diagnosed probable displaced abomasum and in both cases they were right.

The procedure and discussion of surgical correction can be found in *The Iowa State College Veterinarian*, Vol. XVII, No. 1, 1954-1955. Here at the clinic an

incision on both sides is used in most cases with better results. The prognosis in all cases should be guarded with the outcome depending on the extent of damage to the abomasum. Recovery following surgery is usually characterized by 1-2 weeks of little improvement followed by a long convalescent period.

—Rodney E. Hall '58

2

Castration of a (Gelding?).

A three year old riding horse was entered into the Stange Memorial Clinic on March 28, 1957. The owner had purchased the horse as a gelding, but found him to be rather high spirited and difficult to handle at times. Upon examination, no distinguishable structures were palpable in the scrotum. All feed was withheld and exploratory surgery for a cryptorchid testicle was planned for the following day.

March 29, the horse was led to the casting mats and 200 cc. of a solution containing 8.5 Gm. chloral hydrate, 1.9 Gm. pentobarbital sodium, and 4.2 Gm. magnesium sulfate were administered intravenously. The casting harness was then used to cast the horse onto the mats.

Close examination of the scrotal area revealed two large scars, indicating that castration had been attempted previously. The majority of retained testicles are found on the left side, therefore this side was chosen for exploratory examination. The area was prepared for aseptic surgery and a 5 inch skin incision was made over the left portion of the scrotum. The hand was pushed down into the inguinal canal by blunt dissection. Much connective tissue was encountered all the way down the canal, but no testicle or epididymis was found in the area outside the internal inguinal ring. The operator then pushed one finger through the peritoneum and widened this hole to about 3 inches by tearing. The undersized testicle was finally located approximately 5 inches from the internal ring. The testicle, epididymis and spermatic cord were brought out of

the inguinal canal by gentle steady traction. A White Emasculator was used to sever the spermatic cord and crush the spermatic blood vessels.

The contents of the canal were then pushed up against the internal inguinal ring with two sterile gauze packs which were tied together for easy removal. Three braided nylon interrupted sutures were placed in the skin incision. Fifteen-hundred units of tetanus antitoxin were administered subcutaneously, and the horse was removed to the stall.

The packs were removed 48 hours after surgery. There was some swelling which persisted for several days. It was felt that the gelding would do better at home with more exercise and thus was released from the clinic on April 3, 1957.

—Rog Larson '57

3

Osteochondrosarcoma.

On March 5, 1957, a 10-year old female terrier cross was admitted to Stange Memorial Clinic with a large firm tumorous mass (15 by 8 by 7 cm.), which involved the proximal end of the radius and ulna. The leg was ankylosed in a flexed position



Neoplasm, ankylosed leg, and muscle atrophy of shoulder.