

inciting action of the hematocyst itself acting as an irritant upon the tissues.

Ted Cox, '54

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Impaction of the Fore-Stomachs and Abomasum in a Cow.

On Jan. 2, 1953, a six-year-old Brown Swiss cow was admitted to Stange Memorial Clinic with a history of having been bloated for three days. A trocar and cannula had been inserted in the left paralumbar fossa in the field and the cannula was still in place when the patient entered the clinic.

After a thorough examination, a decision was made to perform a rumenotomy. The left paralumbar fossa was prepared for surgery and a routine rumenotomy performed. Approximately three to four bushels of ruminal and reticular contents were removed, roughly ninety percent of the material being whole shelled corn. The reticulum was searched for foreign bodies, but none was found. Two ounces of an antiferment (turcaprol) in two gallons of mineral oil was pumped into the rumen before closing the ruminal incision. Three million units of procaine penicillin in oil was administered intramuscularly.

On January 3, the cow ate ground feed and drank water. The patient had not had a bowel movement so two No. 10 capsules of powdered gentian, ginger and nux vomica (equal parts) and two anthraquinone cathartic (istizen) bolets were given orally. Five hundred cubic centimeters of 50 percent dextrose was given intravenously and three million units of procaine penicillin in oil administered intramuscularly.

The next day the animal was very depressed, still somewhat bloated, but passed a small amount of fecal material. Four quarts of mineral oil, two ounces of turcaprol and two No. 10 capsules of powdered gentian, ginger and nux vomica were given orally. Ten cubic centimeters of cascara sagrada extract (peristaltin) was given intravenously and repeated in one hour without effect. Again 3,000,000

units of procaine penicillin in oil was administered intramuscularly and 500 cc. of 50 percent dextrose given intravenously.

On January 5, the patient was very much depressed, and the eyes were sunken in their sockets. One-half grain of arecoline hydrobromide was given subcutaneously at 9:00 A.M. and when no bowel movement was noted at 9:45 A.M., another 0.5 gr. was administered. This was again repeated an hour later, but still no response was evoked. The animal died about two hours later.

At necropsy it was shown that the rumen and reticulum were partially filled, but the omasum and abomasum were impacted with shelled corn. This presumably resulted in the atony and bloat. Widespread hemorrhages throughout the tissues varying from petechiae to ecchymoses were also found.

This case is an illustration of a common condition in which the fore-stomachs and abomasum cease to function. All therapy tried in this particular case was unsuccessful. It has been shown elsewhere that doses of arecoline hydrobromide up to 0.25 gr. stimulate ruminal movements but doses in excess of this inhibit them. It was felt that the high doses of arecoline hydrobromide used here were necessary to overcome the nervous and toxic threshold that were raised in this animal because of the nervous depression. In this case, as in most others, the cause of the condition was not determined.

John E. Smith, '54

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Retention of a Reduced Coxo-femoral Luxation by the Use of an Intramedullary Bone Pin.

The following two cases are described in order to illustrate a method devised by Dr. Durwood Baker for retaining a reduced luxation of the coxofemoral articulation by using an intramedullary bone pin when the opposite femur was fractured.

The first case, a two-year-old black cocker male, was presented to the Stange

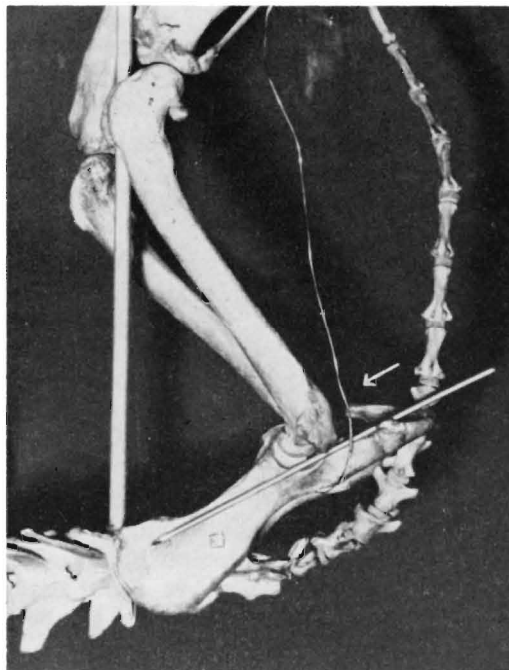
Memorial Clinic on Aug. 22, 1952, with a history of having been hit by a car a week previously. Upon examination, a fracture of the left femur and luxation of the right coxofemoral articulation were diagnosed. This same day the fracture of the left femur was operated upon by the open reduction method and the bone retained in apposition by an intramedullary pin and a Thomas splint. The luxation of the right coxofemoral joint was reduced and the leg retained in a flexed position by the figure eight bandage.

On August 26, the luxation recurred, so the next day the following operation was performed: The dog was anesthetized with pentobarbital-sodium and placed on the operating table with his right side up. An area around the tuber ischii was prepared for surgery in the usual manner. A threaded-point intramedullary pin sufficiently long to extend from the tuber ischii to the tuber coxae was inserted just ventral and a little medial to the tuber ischii. The pin was then directed forward in such a manner as to go just lateral to the acetabulum and dorsal to the head and neck of the femur. Passing the pin still farther anterior, the end of the pin was anchored in the ventrolateral portion of the wing of the ilium.

Following the operation, the patient made a rather uneventful recovery and was discharged on September 9. Locomotion was normal by October 2, when he was returned for removal of both pins.

The second case was very similar to the first. This was a two-year-old German Shepherd male admitted to the clinic on Jan. 17, 1953, with a history of having been hit by a car eight days previously. An X-ray picture revealed a fracture of the left femur and luxation of the right coxofemoral joint.

On January 19, the patient was anesthetized and the fracture of the left femur was operated upon by the open reduction method and intramedullary bone pinning. Following the operation, a Thomas splint was applied to give added support to the fractured member. The luxation of the right coxofemoral articulation was reduced and the limb retained in a flexed



Course of bone pin. Arrow points at sciatic nerve.

position by a figure eight bandage. This bandage was removed in two days because the luxation had recurred. The patient was again anesthetized and the same operation was performed as described in the first case, using an intramedullary pin to aid in retention of the joint in apposition.

With the exception of some inflammation of the scrotum due to irritation by the Thomas splint on the fractured leg, this dog made a favorable recovery. He was able to walk up and down stairs by the time he was discharged on February 2. He was returned to the clinic on March 7, to have both pins removed, and ambulation was reasonably good at this time.

This method of retaining a reduced coxofemoral luxation when there is a fracture of the leg of the opposite side was devised for the following reasons: First, in neither of these cases did the figure eight bandage hold the joint in apposition. Secondly, the conventional methods of pinning a luxated femur in the reduced position would render this

side of the dog extremely uncomfortable to lie on. It would also be quite painful to lie on the side of the fractured femur; hence, with both sides rendered painful, the dog would not rest very well. The method described in this article seemed to cause no added pain when the dog lay on the side of the luxation.

When inserting the pin, advantage is taken of the small enlargement present at the ventro-lateral aspect of the tuber ischii. This enlargement resists any lateral movement of the pin. It is important that the pin pass far enough ventromedially so as to miss the sciatic nerve. The nerve passes over the greater sciatic notch of the ilium just posterior to the acetabulum and downward posterior to the femur. If the pin were to pass lateral or dorsal to the sciatic nerve, the nerve could easily be pinched between the pin and the bone in this region. A threaded point pin is used in this operation so as to firmly secure the point of the pin in the wing of the ilium. The middle portion of the pin acts as an extension of the dorsal lip of the acetabulum, preventing dorsal luxation of the head of the femur.

Bob Warner, '54

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Inguinal Hernia in The Bull. On Aug. 1, 1952, a three-year-old Angus bull was admitted to Stange Memorial Clinic showing an enlarged and somewhat hardened scrotum. Inguinal hernia was the diagnosis. A 48-hour fasting period was begun immediately in preparation for surgery.

The usual method of surgically correcting inguinal hernia is by entry into the abdominal cavity at the paralumbar fossa. The herniated portion of the intestine is then returned to the abdominal cavity by traction and the internal inguinal ring closed with umbilical tape. This method is not indicated, however, if the tunics are thicker than normal or if the hernial contents are adhered to the spermatic cord or testicle. The chief advantage of this method of operating is the

conservation of the testicle.

The method of correction decided upon in this case was by incision over the external inguinal ring and subsequential hernial reduction from the exterior. On August 4, the patient was given orally 45 Gm. of chloral hydrate dissolved in water for sedation, 100 cc. of Millenbruck's solution intravenously, and 20 cc. of 4 percent procaine hydrochloride solution locally at the operative site. The incision was made over the external inguinal ring and down to the internal ring. The adhesions were broken down, the hernial contents returned to the abdominal cavity, and the testicle removed with an emasculator. The internal inguinal ring was sutured with No. 4 chromic catgut, the area packed with sterile gauze, the external inguinal ring sutured with No. 4 chromic catgut and the skin incision closed with silk.

On August 6, the gauze packs were removed. The operative area was noted to be markedly swollen. Cold water packs were applied for thirty minutes in hopes of decreasing the congestion. The following day, however, it was deemed advisable to increase drainage by enlarging the scrotal incision. This was done and much sero-sanguinous exudate and many blood clots were removed. The incision was flushed out with an irrigant—0.5 percent quaternary ammonium compound or potassium permanganate, 1:3000—every other day or as was indicated. Three million units of procaine penicillin G in oil was given intramuscularly. The penicillin therapy was continued at this level for two days and was then reduced to 1,500,000 units daily for three more days.

As healing progressed, irrigation was ceased and boric acid and air slaked lime, equal parts, applied. At all times the patient was kept free of flies to prevent larval infestation.

On August 28, the patient was discharged and by this time the wound was granulating nicely and the bull was in apparent good condition.

Dean Philson, '54