Diaphragmatic Herniorrhaphy in a Dog

William Fennessy

Follow this and additional works at: http://lib.dr.iastate.edu/iowastate_veterinarian

Part of the Small or Companion Animal Medicine Commons, and the Veterinary Physiology Commons

Recommended Citation

Available at: http://lib.dr.iastate.edu/iowastate_veterinarian/vol12/iss2/8
Diaphragmatic Herniorrhaphy in a Dog. A 4-year-old female dog of mixed breed was admitted to the Stange Memorial Clinic on Nov. 4, 1949, with a history of difficult respiration over the past three years. Although the patient manifested alertness and good spirits, she panted rapidly after very slight exercise. Previous examinations and x-ray examinations had been used to make a diagnosis of diaphragmatic hernia.

On Nov. 10, 1949, the patient was placed on the operating table and pentobarbital sodium, 6 percent solution, was administered via the right cephalic vein until the desired depth of anesthesia was reached. The patient was then restrained in the dorsal recumbent position and a circular area with a radius of 20 cm. was shaved around the xiphoid cartilage. Ether was used to defat the area and 50 percent isopropyl alcohol sprayed liberally thereon as an antiseptic.

So that the patient would be properly oxygenated throughout by the time the thoracic cavity was open, an artificial respirator was started and adjusted to operate at 22 strokes per minute at 160 cc. of tidal air. An expansible tracheal tube was placed in the patient's trachea per orum and the jacket inflated to retain the tracheal tube in position. The tracheal tube was then connected to the respirator and artificial respiration commenced.

After draping the operative area with sterile shrouds, an incision 18 cm. long was made in the ventral midline of the abdominal wall caudad from the xiphoid cartilage. The diaphragm was found to be torn loose from the right costal arch for a distance of 11.25 cm. A small portion of the stomach, the right lateral lobe of the liver and a small amount of the jejunum had escaped into the thoracic cavity. It was necessary to break down multiple adhesions by blunt dissection before these organs could be restored to their normal position. Most of the intestines were removed from the abdominal cavity to afford the operator sufficient room in which to suture the ruptured edge of the diaphragm to the costal wall. Due to the unusual location of the diaphragmatic rupture, forceps were required to hold the diaphragm and needle as eight interrupted sutures were used to secure the diaphragm to the costal arch. The intestines were replaced in the abdominal cavity and the peritoneal edges of the incision were brought into apposition.
tion with a continuous suture. The skin and muscles were sutured with 13 interrupted through and through sutures and the skin was finally sutured with a continuous suture. Nylon, No. 00, suture material was used for all of the above sutures.

The artificial respirator was gradually suppressed, the patient allowed to practice normal respiration which it did with no difficulty and the tracheal tube was then removed.

The patient recovered from the anesthesia seven hours later. At this time 1000 cc. of 5 percent dextrose solution was administered intravenously.

On the following morning the patient exhibited mild discomfort and 5 mg. acetyl salicylic acid were given per orum as a sedative.

On the following days the patient manifested no discomfort, respiration was normal, the wound healed uneventfully and the patient was discharged on Nov. 20, 1949.

William Fennessy, '51

Unusual Bovine Horn Studs. On Jan. 17, 1950, the ambulatory clinicians at Iowa State College were called to see a 2-year-old Shorthorn heifer with a history of having been dehorned about 18 months previously, but horn stubs had grown out on the right side of the poll since that time.

The two horn stubs resembled miniature goat horns, being approximately 4 in. long, and \( \frac{3}{4} \) in. in diameter, and adjacent to each other. About 1 in. of the shell on the end of one of the horn stubs was broken off, thus causing continuous hemorrhage. The hair on the right side of the head was almost completely matted with blood.

It was decided to remove the horny growths and the animal was restrained in a stanchion with a nose lead. A local anesthetic of 10 cc. of 4 percent procaine hydrochloride was injected midway between the orbit and the base of the horn stubs and about \( \frac{1}{2} \) in. lateral to the edge of the frontal bone with a \( \frac{3}{4} \) in. 16 gauge needle in an attempt to block the cornual nerve. The horn stubs along with the skin in which they were imbedded were removed with ranch-type dehorners. Hemorrhage was controlled by clamping off the larger blood vessels with hemostats.

Horn stubs are a common sequel of dehorning operations due to the failure to destroy or remove all of the germinal epithelium surrounding the base of the horns.

Donald H. Crawford '50

A Suspected Congenital Cardiac Deficiency. On Jan. 12, 1950, a 9-month-old female bovine of the Angus breed was admitted to Stange Memorial Clinic. Accompanying history stated that recently the animal showed weakness in the shoulders and had an enlargement in the area of the umbilicus. One year previously, two calves in the same herd exhibited similar symptoms. One of these two animals died; the other was slaughtered. No post mortem results on the slaughtered animal were obtained.

Clinical examination of the patient revealed slightly accelerated respirations and a normal temperature. Edema of the brisket was quite evident. The front legs and shoulders were turned outward and the animal showed considerable respira-