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Repair of a Bilateral Perineal Hernia in a Dog

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found that the cervix had dilated. It was decided that an emergency cesarean section should be performed in an attempt to recover the foal. The mare was anesthetized with thiamylal sodium (Surital-Parke, Davis and Co.) and the operation performed. It was found that 10 to 15 gallons of allantoic and amniotic fluid was present and that the fetus had a hydrocephalus.

On post mortem examination, a rupture of the prepubic tendon and associated muscles was revealed about thirteen inches anterior to the pubis. When the foal was examined it was found that there was no communication between the subarachnoid space and the fourth ventricle. Also, the meninges of the cerebellum were continuous with the dorsal surface of the medulla.

It was felt that hydrops of the fetal membranes, the weight of the hydrocephalus, and the age and weight of the mare all contributed to the rupture of the prepubic tendon.

Edward Mather, ’60

2 Repair of a Bilateral Perineal Hernia in a Dog. On September 26, 1959, a ten year old, male dog of mixed breeding was admitted to Stange Memorial Clinic for repair of a bilateral perineal hernia. The condition was diagnosed by a veterinarian in private practice and was referred for surgical repair.

Four pre-operative enemas were given the dog to remove the fecal matter from the colon and rectum. Anesthesia was produced by a combination of morphine sulfate as a preanesthetic and pentobarbital sodium as the anesthetic. The dog was placed in a perineal stand to raise the rear quarters. The area was then prepared for surgery. A purse string suture was placed in the anus to prevent escape of any fecal material. A six inch incision was made on the left side extending elliptically from the root of the tail to the midline of the perineal region. The hernial contents were found to be mainly omentum-like fat. The musculature of the pelvic diaphragm was sutured starting dorsally and working ventrally using 00 catgut. The internal anal sphincter was sutured to the medial and lateral coccygeal muscles in an area expressed as from 11 to 9 o’clock. From 9 to 7 o’clock it was sutured to the sacro-sciatic ligament, and from 7 to 6 o’clock it was sutured to the head of the internal obturator muscle. A layer of subcuticular sutures was employed to draw the perineal fascia over the area. The skin was trimmed radically to reduce the possibility of post-operative pocketing. Interrupted sutures of Vetafil (synthetic suture material, Bengen and Co., Hannover, West Germany) were used to close the skin incision. The dog was then castrated.

Post-operatively, the dog was fed a gruel of dog food and milk. The recovery from the first operation was uneventful. Repair of the hernia on the right side was accomplished October 13, 1959 using the same procedure employed on the left side. On the right side, the rectum was found to have ballooned through a gap between the anal sphincter and the coccygeal muscles.

Post-operatively, a slight infection developed in the incision. E. coli and Strep-tococcus sp. were isolated from the exudate. A combination of penicillin and di-
hydrostreptomycin systemically and 17900 Forte (mastitis ointment, The Upjohn Co.) locally was used in the treatment of the infection. Subsequent recovery was uneventful and the dog was discharged from the clinic on October 28, 1959 with both hernias successfully repaired. A letter from the owner on Dec. 15, 1959, reported the animal to be in satisfactory condition.

Arnold Kauffman, '60

Nitrate Poisoning in Swine. On July 23, 1959, a call was received from a client who reported that his hogs were sick. Upon arrival at the client’s farm, two dead pigs were found. Three other pigs were weak and when forced to move, did so at a staggering gait. These pigs were examined. The temperatures ranged from 101.5° to 102.7°, well within the normal range. One pig was noted to be breathing rather rapidly and evidence of a watery diarrhea was noted on all of the affected pigs. One of the pigs was unable to rise. A slight dilation of the pupils was noted.

Upon post-mortem examination of two pigs, a large quantity of colorless fluid was noted in the peritoneal cavity of one. Much peri-renal edema was noted in both as well as subcapsular ecchymotic hemorrhages of the kidneys. The blood was a dark color and slightly watery. No gross lesions were noted in the gastric or the intestinal mucosa. The contents of the stomach were ground grains and greens. The liver was slightly hyperemic.

Upon questioning the owner, it was determined there had been no recent change in feed except from a starter to a grower protein mixture. The shoats were running in a small lot with no pasture. Upon examination of the lot, it was noted that several stumps of weeds were all that was left of a large weed patch. The plants, of which a few were left, were the redroot pigweed (Amoranthus retroflexus) and lambsquarter (Chenopodium album). After looking at the stumps, the owner mentioned that the pigs had suddenly taken to eating the weeds and had consumed them over a two day period.

A diagnosis of a possible nitrate poisoning was made. It was confirmed later by a laboratory report. The laboratory proceedings by a commercial laboratory consisted of a post-mortem examination and bacterial culturing. No blood chemistry work was carried out.

The remaining pigs were given magnesium sulfate in soaked oats as a purge to empty the digestive tract and the few remaining weeds were removed from the lot.

Under certain conditions, particular plants have the ability to accumulate large quantities of nitrates which if eaten are toxic to animals. Why the pigs suddenly started eating the weeds in the lot in a period of a day and a half is still undetermined. It is thought that in switching the pigs from a starter to the grower ration, the feeder might have been empty for a short period of time.

A week later another client brought two pigs to the clinic for post-mortem examination. The history of having turned the pigs into a feedlot overgrown with pigweeds two days earlier was obtained. The pigs had eaten the weeds to the ground. On post-mortem examination, lesions of peri-renal edema and subcapsular ecchymotic hemorrhages of the kidney were noted. The blood was dark in color. No gross lesions were observed in the gastric or intestinal areas. A diagnosis of nitrate poisoning was made.

There seems to be some discrepancy at present among veterinarians whether cases similar to these are actually poisonings or a peculiar manifestation of enterotoxemia or edema disease. Similar conditions to these have been described as deadly nightshade poisoning and others as whey toxicity. With the accurate histories of these cases in which the pigs were eating large quantities of nitrate rich plants growing on soil rich in nitrogen, it seems plausible that nitrate poisoning does occur in swine.

R. D. Wunder, D.V.M. and R. A. Schultz, '60

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