Habitual Bloat in a Bull

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moved as soon as the castration was complete, the rope was then removed and the stag allowed to remain quiet. In all but one instance the stag was on his feet immediately, although still showing incoordination. The one stag that failed to immediately arise was larger and more obese than any of the other four, but he was on his feet before the next castration was completed.

The apparent disadvantages of chloroform anesthesia in castration of boars are as follows:
1. Increased cost
2. Increased time (questionable)
3. Increased risk (questionable)

The advantages are as follows:
1. Increased humanity
2. Increased professional appearance
3. Increased exact technique
4. Increased control of patient
5. Decreased travail of restraint.

R. J. Cowles, '50

Habitual Bloat in a Bull. A 2-year-old Angus bull was referred to Stange Memorial Clinic on Dec. 24, 1949, with a history of having been bloat ed for the past six days. He had been unsuccessfully treated on the farm with mineral oil and antiferments.

For the next two weeks, the bull was treated daily with one or more of the following: carminatives, ruminatorics, rumen transplants and antiferments including the newly developed methyl silicone compound. In the meantime, his condition was studied in attempt to learn the cause. Medicinal treatment was completely unsuccessful since it was necessary to relieve the bloat almost daily, and sometimes twice daily, by means of the stomach tube. Following relief of the bloat, rumen motility always returned to normal.

Laboratory examination of the blood showed no significant changes, but a liver function test indicated that there was some reduction in functional capacity. The urine was of a very low specific gravity—1.001 as compared to a normal of about 1.030. It was also acid in reaction having a pH 6 instead of the usual alkaline pH 8 of normal bovine urine. A bacterial culture of the urine yielded Proteus species which may have been contaminants.

The Kingman tube was readily passed indicating that there was no marked stricture or other obstruction in the esophagus. Rectal palpation indicated a slight enlargement of the left kidney with an abnormal softening near the hilus.

Since nothing definite could be determined by the above means, an exploratory laparotomy and rumenotomy was indicated. After the laparotomy incision was made, the peritoneal cavity was manually explored. It was noted that the liver seemed enlarged and displaced to the left, and that the left kidney was enlarged and somewhat softened. A rumenotomy was performed immediately. Four pieces of baling wire were found free in the reticulum, but none could be found penetrating other organs through the reticular wall. After the operation, the bull was given 1 million O.U. of procaine penicillin in oil and wax intramuscularly followed by 50 Gm. of sulfanilamide daily for five days as a prophylactic treatment. Recovery from the operation was uneventful, but the bloat continued.

Since it was presumed that the enlarged liver interfered with regurgitation and eructation, the bull was discharged with the recommendation that he be slaughtered since nothing further could be done for him.

The bull was slaughtered Jan. 23, 1950. At the abattoir, time did not permit a careful autopsy, but there were multiple abscesses throughout the liver with extensive adhesions to the diaphragm. Both kidneys showed multiple abscesses with more extensive involvement of the left kidney.

Further discussion of the case with the owner indicated that while the bull was in moderately good condition upon entering the clinic, he had never been a normally thrifty individual. It is quite probable that the infection causing the abscesses had been acquired as a calf and had
slowly but continually progressed to the condition seen at the abattoir.

It is assumed that the habitual bloat was due to the displacement of the liver and its numerous adhesions to the diaphragm. These were undoubtedly sufficient to cause a slight compression of the esophagus, probably at the esophageal hiatus of the diaphragm. This compression did not interfere with deglutition or passage of the Kingman tube, but did halt rumination and eructation of gas.

R. L. Gillespie, ’51

Cystic Calculus in a Dog. A 1½-year-old male black Cocker Spaniel was admitted to the Stange Memorial Clinic on Dec. 30, 1949, with a history of having been run over by a tractor several months previously. His condition had become steadily worse since that time, and he was unable to control the voiding of urine. The dog displayed an irritable and snappy disposition when first approached for examination. Manual manipulation and examination of the skeletal structures revealed no visible defects or injuries. His temperature was slightly elevated to 103° F. When examination was made of the abdominal region, the dog evidenced severe pain. Deeper palpation of the region immediately anterior to the pubis revealed a hard mass in the region usually occupied by the bladder. A tentative diagnosis of cystic calculus was made, and further examination conducted with the fluoroscope. With this diagnostic aid, a large oval mass, approximately one and one-half times the size of a hen’s egg, was visible in the bladder region, confirming the diagnosis.

The dog was placed in a cage and kept off feed that night. In the morning, a sedative dose of 1 gr. of morphine sulfate with 1/100 gr. of atropine sulfate was injected subcutaneously in the flank. Later, he was brought to the operating table and restrained thereon in dorsal recumbency. The entire abdominal region was shaved, defatted with ether, and sprayed with 50 percent isopropyl alcohol. The prepuce was tied shut with linen suture material to prevent the leakage of urine during the operation. Ophthalmic ointment (merthiolate 1:5000) was placed in both eyes and upon the nose.

Ether was administered by inhalation until a stage of surgical anesthesia was produced. The table was tilted down to tip the dog’s head down and to throw the viscera forward in the abdominal cavity. A sterile rubber shroud was placed over the patient, with its opening positioned just anterior to the preputial orifice.

An incision was made along the mid-line from a point just anterior to the prepuce extending forward about 2 in., cutting through the skin and fascial layers. The peritoneum was grasped with a small forceps, punctured, then cut open to correspond with the opening in the body wall. By digital manipulation, the bladder was located and brought out through the opening onto the shroud. Sterile cotton towels were clamped in place beneath it to prevent leakage of its contents into the peritoneal cavity upon opening. A straight incision was made through the ventral aspect of the bladder wall for approximately 2 in. The single large calculus was firmly adherent to the bladder mucosa and had to be separated from it by blunt dissection and properly applied pressure. When removed finally, it was found to be oval shaped, 2½ in. long and 1½ in. wide at its greatest diameters, and had a rough sandy surface.

The bladder was examined for other calculi, but none were found. The wall of the vesicle was greatly thickened and hemorrhagic, and no normal mucosa was evident. The incision in the wall of the bladder was closed with two layers of Cushing continuous infolding sutures, using No. 1 plain catgut. The towels beneath the bladder were removed and that organ returned to the abdominal cavity. The peritoneum was grasped with forceps, its edges brought into apposition, and closed with a line of continuous using No. 1 plain catgut. The sutures, edges of the skin and fascia were brought