potassium permanganate solution. Sulfapyridine powder was then put in the wound and fly repellent was applied to control screw-worms. The wound looked good at this time and the temperature was still normal. This treatment was continued for two days more.

On August 1, the temperature was 103.2°F. Three million units penicillin were given and continued for another two days. Then the dose was reduced to 1,500,000 units penicillin and 2 G. streptomycin were added. This was continued for three days. During this week the temperature fluctuated between 101° and 103°F. The local wound treatment was continued in the meantime.

The tenth day postoperatively, the cavity had filled in considerably, although it was still possible to move one's hand around inside. It was decided healing was being retarded by accumulation of fluid in the ventral part of the cavity due to a lack of bottom drainage. An incision was made at the ventral part of the cavity to provide the needed drainage and considerable hemorrhage followed, probably from the subcutaneous abdominal vein or one of its larger tributaries. The incision was packed with sterile gauze to provide hemostasis and a blood transfusion, 500 cc. along with 1,500 cc. saline, was given.

The next day the pack was removed and flushing of the wound with potassium permanganate and inserting sulfapyridine powder resumed. In five days healing was progressing nicely due to the bottom drainage. The cow was sent home on August 11.

Robert C. Cowger, '55

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**Esophageal Dilatation in a Toy Manchester.** A 7-month-old male Toy Manchester was admitted to the clinic on July 6, 1954. The history indicated an esophageal obstruction. For 4 or 5 months, the dog had shown signs of vomiting after barking or eating solids. Previous examinations by other veterinarians had led to the diagnosis of upper digestive tract disturbance and tonsilitis. The patient had been vaccinated for distemper and rabies.

On examination at the clinic, the tonsils were noted to be inflamed; a fecal check was negative for parasite ova. The tonsils were painted with merthiolate and the patient given triple sulfapyridine orally. On further examination of the patient, a crepitating enlargement was palpated just anterior to the thoracic inlet. The enlargement swelled and deflated as the animal breathed. The possibility of a diverticulum or perforation with interstitial emphysema was considered, and fluoroscopy was indicated. Fluoroscopical examination, after giving barium sulphate, indicated an esophageal diverticulum. On a second examination, this condition was revealed to be esophageal dilatation.

A diet of milk and semi-fluid foods was prescribed and the patient was alert and active the several days that it remained in the clinic. The owner was advised about corrective surgery and its rather unfavorable prognosis. The owner decided against surgery. The patient was discharged and the owner was instructed to feed the dog small quantities of soft foods at frequent intervals and prevent gulping of food as much as possible.

At the time of this writing, the owner was contacted and reported that the dog was in good condition for 2 weeks following hospitalization. At that time, the dog was lost or stolen and has not been seen or heard of since its disappearance.

Paul Nees, '55

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**White Heifer Disease.** On Feb. 4, 1954, a 2-year-old Shorthorn heifer was admitted to the clinic with the history of being bred 3 months previously by a bull that was reportedly settling other cows in the herd. Six weeks later, there was a persistent discharge from the genital tract.

When the animal was presented to the clinic, she showed symptoms of frequent straining, lack of condition, and some dehydration. A vaginal examination revealed a complete stricture of the vagina by
boney-like growths, apparently fibromatous tissue, approximately 10 inches anterior to the vulva. An examination of the genital tract anterior to the stricture revealed it was approximately 15 inches long by 8 inches in diameter and contained a large amount of fluid. The horns of the uterus were only slightly enlarged. The left ovary was found to be 2 cm. x 2 cm. with a corpus luteum on the free border; the right ovary was only slightly smaller.

A diagnosis of white heifer disease was made. The owner followed the advice of the clinician and the animal was marketed.

An examination of the genital tract obtained from the abattoir proved the diagnosis was correct. A dark-brown, odorless, viscous fluid, apparently the accumulations of repeated estrual secretions from that portion of the tubular genital tract above the obstruction, escaped when the uterus was incised. The fluid was found to be retained by an incomplete excavation of the Mullerian ducts in the vicinity of the vagina just anterior to the fibrous boney-like growths. The greatest part of the distention of the genital tract was observed to be in the anterior part of the vagina which was continued by a greatly dilated cervix. It is assumed that the hard fibrous boney-like growths in the vagina were the result of trauma such as repeated services by the bull.

"White heifer disease" is a form of sterility characterized by developmental deficiency in which there exists an inhibition of the derivatives of the Mullerian ducts. Its occurrence is thought to be hereditary in nature and slaughter of the affected animal seems to be the best recommendation that can be given.


Wayne Brown, '55

Dogs, like humans, have blood groups— at least six.