tumor was a moderate chronic peritonitis.

Several blocks of tissue were removed from the involved organs for the purpose of preparing sections to determine the type of tumors. They were found to be lymphocytomas, and were similar in character to others which have been examined at this clinic. The tumors were gray, somewhat fleshy, and more firm than lymph-node tissue. Because of the widespread distribution of these tumors it is not possible to state definitely where the primary growth was located.

-R. J. Tobola, '42

Free-martin Heifer. A local veterinarian sent in this interesting case history of a free-martin Holstein heifer. At two years of age, this heifer appeared to have a normal sexual cycle. She had been bred six or eight times and still came in heat regularly. This heifer showed no masculinity or coarseness as do many free-martins.

Upon examination per rectum, the vagina and cervix were normal. The uterus was normal, tightly coiled, firm, and reacted to touch. The oviduct felt large and coiled, but otherwise normal. The ovaries showed evidence of normal function. In one ovary were felt a large corpus luteum and several small follicles. In the other ovary, there was a well developed follicle.

Upon examination with a vaginal speculum, a pink cervix was seen. There were no ulcerative or diseased areas on the wall of the vagina. A small strand of tissue could be detected hanging from the dorsal wall of the vagina above the urethral orifice.

The animal was diagnosed as nonpregnant, and probably a nonbreeder due to some genital malformation. The owner was advised to slaughter the heifer. It was slaughtered in a few weeks and a post mortem examination was made of the genitalia.

The vagina and cervix were normal. The lumen of the uterus contained some mucus; and the caruncles were small, whitish in color, but normal in number.

The right ovary contained one large functional corpus luteum which was about one-half inch in diameter. There was also a small reddish-colored corpus luteum about two millimeters in diameter. A well developed follicle was located on the pole opposite the corpus luteum. The left ovary was much smaller than the right ovary and its surface showed several small follicles, none of which were more than two millimeters in diameter.

The oviducts were both abnormal throughout most of their course. Each oviduct consisted of several distended segments of variable size and resembled a string of irregular sized beads. In each, the fimbria and anterior one to two inches of the tube were normal and completely canalized. Each tube had from ten to fifteen of these beaded, cystic structures in its course. The cysts were not tightly distended and would fluctuate somewhat on pressure. They varied in size from five to fifteen millimeters in length and from two to eight millimeters in diameter. The oviducts were normal at the uterine end and a tubo-uterine opening could be observed. No semblance of a canal could be found between the cystic portions. That portion of the oviduct between the cysts appeared to be a thick strand of connective tissue.

The fluctuations of the cystic structures made it impossible to palpate the abnormality. Diagnosis was made from history alone.

-H. P. Lortz, '42

Chronic Tetanus in a Horse. On June 12, 1941, I was called to see a horse which the owner thought had tetanus.

The horse was a four-year old, grade, strawberry roan gelding, in excellent condition. The history disclosed that he had first been noticed to be stiff and excitable about ten days before. One week prior to that he had a slight sore neck caused by a short collar. The neck had healed perfectly with formation of very little cicatrical tissue.

Examination revealed pulse, 42; respiration, 24; and temperature, 102°F. When

first observed, the animal was standing in a stall eating and was having difficulty lowering his head into the manger. While being backed out of the stall, he dragged both front feet, but could pick up the hind ones with no apparent difficulty. He had little trouble in walking forward.

The muscles of the neck were very tense and the patient kept the head and neck extended on a horizontal plane. A slight noise or unexpected movement would startle him, resulting in slight muscle convulsions. The nictitating membranes were visible as one finds in a typical case of tetanus.

I made a diagnosis of a mild case of tetanus and predicted that the animal would recover in a few days if kept in a dark stall.

Two weeks later I was called back. The horse was in exactly the same condition as before, with the exception that the temperature was  $101^{\circ}F$ . The owner wanted to give the horse tetanus anti-toxin, but

upon finding the amount needed for that treatment and the price, changed his mind. I left some alteratives, with the prognosis the horse would recover if given a chance.

I last saw this animal on Sept. 10, 1941. He still presented the same clinical picture as on June 12th. I saw him frequently during the summer and at no time did he show any change, except at one time his sub-maxillary lymph glands were swollen and painful, which condition disappeared in a few days. Two other veterinarians diagnosed the case as tetanus, but suggested the possibility of deep-seated fistula.

Literature fails to reveal any record of such cases with the exception of a note in Hutyra and Marek, Vol. 1, fourth edition, telling of two cases, one case observed by Lollander, in which a horse had a prolonged attack of tetanus lasting for 3½ months, and another by Schenkl in a cow which lasted for six months. Nothing was said as to the recovery of either animal.

-W. L. Munson, '42

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