

CLINICAL MEDICINE

Index

1. Persistent Hymen in a Mare165
2. Urethral Calculi166
3. Traumatic Gastritis Involving the Spleen167
4. Penicillin Therapy in a Case of Canine Meningitis168
5. Purulent Metritis Complicated by Purulent Encephalitis in a Heifer.167
6. Coronitis170

I **Persistent Hymen in a Mare.** A standardbred Palamino yearling filly was brought to the Stange Memorial Clinic on January 3, 1945. Five to six weeks before admission the owner noticed that during urination a structure similar in color and consistency to the vulvar mucous membrane was protruded between the lips of the vulva. Following urination this structure would disappear. At about three weeks of age he noticed that the prolapsed tissue required more time after urination to disappear. About ten days ago he noticed the filly straining following urination and it now required two to three hours for the prolapsed tissue to disappear from sight. At no time did he attempt manual replacement of the prolapsed structure. The filly's straining increased and the prolapsed organ showed more redness so he decided to seek professional assistance.

Vaginal examination with a vaginal speculum and manual manipulation revealed a transverse membrane extending across the genital canal at the posterior border of the vagina. Through the speculum the membrane appeared hyperemic. The membrane was resistant to manual pressure. A diagnosis of imperforate persistent hymen was made.

Surgical Extirpation

Surgical extirpation was done as follows: As the membrane protruded from the vulva a scissors was used to cut it close to the lips of the vulva. The escape of a thick cloudy mucous followed removal of the membrane. A culture of this material was made and *Streptococcus zooepidemicus* was isolated.

A perinorrhaphy was performed. The vulva opening extended almost up to the anal sphincter. This, plus being a "wind sucker," caused the fecal material to be aspirated into the vulva at each defecation and caused a constant irritation and source of infection to the genital tract.

Perinorrhaphy

The perinorrhaphy was performed with the animal confined in the stocks. The site of operation was prepared by first lavaging with 2 per cent therapogen and then swabbing the area liberally with 70 per cent ethyl alcohol. A local anesthesia of 2 per cent procaine hydrochloride was injected into the lips of the vulva. A small strip of skin was removed from the lips of the top half of the vulva and about 15 vaginal clamps were then inserted into the vulvar lips, thereby lowering the dorsal commissure of the vulva to the level of the ischial floor.

The imperforated hymen has little peril for the life and general health of the patient unless overlooked until the vagina is tensely filled with menstrual debris. When both vagina and uterus are greatly

distended with pus, there is ground for serious fear that breeding is at an end.

The hymen is a transverse membranous expanse stretching across the genital canal marking the boundary between the vagina and vulva. It represents the partition between the termination of the hind gut and the proctodeum of the embryo, which has failed to disappear in the lower or genito-urinary division of the cloaca. Generally it atrophies and completely disappears in our domesticated animals before their birth, but at times it persists as a broad expanse closing one-half or more of the genital canal.

Imperforate Membrane

The hymen sometimes persists as an imperforate membrane. In Great Britain it is common in a certain strain of white cattle, so it has become known as "the white heifer disease." In any animal, imperforate hymen inevitably leads to the accumulation of menstrual and other debris in the vagina, which becomes a great retention cyst. Estrum may be regular, but copulation is impossible, because the penis of the male is prevented from entering the vagina. As soon as the vagina becomes fully distended, discomfort and pain result, causing colicky symptoms and expulsive efforts. During expulsive efforts the hymen may be forced back into the vulva and become visible between the vulvar lips.

Of interest in this case is the fact that imperforated hymen in the mare is apparently very rare. There occur a few rather vague descriptions of imperforated hymen in the mare in veterinary literature.

REFERENCE

1. The diseases of the genital organs of domestic animals, by W. L. Williams, 1921. G. E. Riley, '45

2

Urethral Calculi in the Bovine Species. On December 14, 1944, an 8-month-old Hereford steer was presented at the Stange Memorial Clinic with the following history. The steer had been noticed about five or six days previously showing difficulty in urination. The

patient could urinate some but only slightly. There was no blood noticed in the urine and there was considerable straining during micturation. Rumination had stopped two days before he was brought to the clinic. The owner of this calf has had several cases similar to this in this feeder calves every year.

The patient was examined and the following symptoms were noted. The abdomen was distended. A very small amount of clear urine was passed with no evidence of blood in the urine. The feces were drier than normal but otherwise defecation was normal. No odor of urine could be detected on the breath and there were no signs of severe uremia. A diagnosis of urethral calculi was made.

The steer was placed in a stanchion and the perineal region was clipped and scrubbed. The area was then cleansed with ether and alcohol and tincture of iodine was applied. Epidural anesthesia was induced using 10 cc. of a 2 per cent solution of procaine hydrochloride injected into the epidural space between the last sacral and the first coccygeal vertebrae.

Incision

An incision was made on the midline approximately four inches below the floor of the ischium. The incision was four inches long and extended inward to the penis. The root of the penis was isolated and transected about eight inches from its attachment. The amputated end of the penis was brought to the dorsal commissure of the incision and was sutured to the skin. The wound was then dusted with sulfanilamide powder. A probe was introduced into the urethra and it was found to be open up to the ischial floor.

Two trocars (10 gauge) were placed on either side of the abdomen so that they penetrated the wall of the abdomen to the peritoneal cavity and provided adequate bottom drainage. Several quarts of clear watery fluid with a distinct urine odor was drawn off. The animal was then replaced in the stall and a grave prognosis was made.

The patient was observed the following day and he appeared much brighter. On December 18, a trocar was inserted into