

left hind quarter were isolated in pure cultures from these samples.

Twenty gms. of sulfanilamide were administered per orum. This sulfanilamide therapy was continued for the next 3 days. The left front quarter continually oozed a purulent exudate and was very firm and warm. The udder was milked out each day and the temperature dropped to 101.3° F.

On October 22, 1947, the patient was discharged. The milk had returned to normal in the left front and left hind quarters. At that time it was understood the owner would send the cow to slaughter.

The prognosis of treatment of a lacerated wound of the teat when the quarter is infected is guarded. Had the owner been present when the animal was admitted and the diagnosis of mastitis in two quarters made, he probably would have taken her directly to slaughter instead of trying to have the teat repaired on a quarter already affected with mastitis.

—A. Neumann, '49

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Dystocia Due to Induration of the Cervix.

On Oct. 5, 1947, a Short-horn heifer, approximately 2½ years of age, was admitted to the Stange Memorial Clinic. She had been in labor since the morning of Oct. 4. The local veterinarian, who first attended the case, had advised the owner to bring the heifer to the veterinary hospital.

The cow was placed in the stocks and a vaginal examination was performed. The operator discovered that induration of the cervix was responsible for the dystocia. At that time it was also determined that the fetal membranes and fluids were in a state of decomposition. In view of these facts, a caesarian section was deemed advisable.

The operative area in the right paralumbar fossa was shaved, washed with soap and water, defatted with ether, and painted with a 7 percent tincture of iodine. The area, where the incision was to be made, was anesthetized by intracutaneous injections of 2 percent procaine hydrochloride solution. The deeper struc-

tures beneath the line of incision were anesthetized by liberal injections of the same solution.

An incision was made through the body wall, dorso-ventrally, about midway between the os coxae and the last rib, and was 14-16 in. in length. The skin, underlying fascia, muscles, and peritoneum were successively and separately incised.

Through this opening, the uterus could be reached by the operator. The wall of the uterus was then incised near the apex. The gas formed by the decomposition of the fetal fluids caused the decomposing fetal membranes to bulge through the incision in the uterine wall. The membranes were pulled to the exterior where they were cut and the malodorous fetal fluids allowed to drain away.

The operator grasped the fetus by the hind limbs, applied obstetrical chains, and with the aid of an assistant the fetus was removed. During this process, one of the hoofs was detached from the fetus due to extensive decomposition of the tissues. The teeth of the calf were loose, indicating that it had undergone decomposition for at least 12 hrs. prior to removal from the uterus. The fetal membranes were easily removed as there no longer existed any attachment to the maternal placenta.

The cavity of the uterine horn was cleansed of all debris and the incision was closed in the wall of the uterus with a Connel infolding suture using No. 3 chromic catgut. Contractions of the uterine musculature, observed at this time, were considered a favorable indication for the healing of the uterus.

The incised edges of the peritoneum, transverse fascia, transverse abdominus, obliquus abdominus internus, and obliquus abdominus externus muscles were sutured separately and in apposition by a continuous suture using No. 5 chromic catgut. Sulfanilimide powder was applied to the fascia before the skin was sutured. Bipp ointment was topically applied over the surgical wound of the skin.

The prognosis in this case was guarded to unfavorable. There existed the possibility of peritonitis and possible intoxication by absorption of the toxic products

of the decomposing fetal fluids through the damaged uterine mucosa.

On Oct. 6, 1,000 gr. of sulfanilimide was administered orally in 1 dose, as a drench. On Oct. 7-8 the same amount of sulfanilimide, divided into 3 doses per day, was administered.

On Oct. 9, the cow appeared somewhat depressed. Besides the usual dose of sulfanilimide, 1,000 cc of glucose was administered intravenously. The last administration of sulfanilimide was made on Oct. 10.

The danger of peritonitis, by this time time was greatly lessened, however, the animal was not eating or drinking normally. Oct. 10-11, 4 gal. of water was administered daily via a stomach tube. During this time a slight muco-purulent exudate was noted draining from the vulva. The region of the incision was slightly inflamed and healing seemed to be progressing satisfactorily.

The patient's general condition improved until Oct. 13, she was eating and drinking well. At this time a firm swelling was noted in the region of the ventral commissure of the wound. A local increase in temperature was observed in this area accompanied by some pain.

The swelling of this area became so extensive by Oct. 16, that it was necessary to remove several of the sutures in the ventral portion of the wound. A considerable amount of caseous necrotic tissue and purulent exudate was found between the fascia and the skin. In the following 15 days the sutures were progressively removed and the wound flushed daily with 1-5,000 potassium permanganate solution. An incision was made at the ventral commissure to provide adequate drainage for the exudate accumulating under the skin. Prior to, and during this time the musculature had completely healed and during the latter portion of this period the wound was healing by granulation. However, due to the fact that the lateral edges of the wound were approximately 5 in. apart it was decided to attempt to obtain healing by primary union by debriding the necrotic edges of the wound.

On Oct. 31, the patient was restrained in the stocks and procaine hydrochloride

was injected along the edges of the wound. The skin was separated from the underlying tissues to a depth of about $\frac{1}{2}$ in. along the upper $\frac{4}{5}$ of the unhealed incision. The edges of the skin incision were freshened by removing $\frac{1}{4}$ in. of tissue along the length which was to be approximated. The incision was then resutured using a Stewart or inverted mattress type of suture. The lower $\frac{1}{5}$ of the incision was left open to provide drainage.

The wound healed uneventfully and the sutures were removed on the eighth day. By this time the cow was normal in every respect and giving a good flow of milk. She was discharged with the recommendation to the owner that she be fattened and sold for beef rather than to attempt to rebreed her.

—Jean N. Archer, '49
—John E. Tillie, '49

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Chronic Vaginitis In a Mare. A bay Standardbred mare, 6 years old, was admitted to Stange Memorial Clinic Sept. 22, 1947, with the history that she appeared to be in continuous estrum. Upon examination, it was noted that she strained following each act of urination. A dirty, creamy discharge exuded from the external genitalia and caused "scalding" of the perineum and medial sides of the thighs. Examination of the vagina revealed a thick diphtheritic membrane adherent to the vaginal mucosa. The discharge was due to the chronic necrotic condition of the vaginal mucous membrane.

Sterile cotton swabs applied to the vaginal tissue, at the junction of necrotic and living tissue, were examined bacteriologically. At the time the swabs were taken, treatment consisted of a vaginal douche of 1:3,000 potassium permanganate followed by the application of Bipp to the inflamed areas.

The bacteriological examination revealed 3 organisms: *Staphylococcus aureus*, a beta hemolytic streptococcus, and *Corynebacterium pseudotuberculosis*.

An initial dose of 1,000 gr. of sulfanilamide was given orally on Sept. 23. Three successive doses of 330 gr. of sulfanila-