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Surgical Correction of a Case of Traumatic Pericarditis

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A possible diagnosis of chronic suppurative pneumonia was made.

As symptomatic treatment, she was given ½ gallon of mineral oil and 5 oz. of Turcapsol® by stomach tube.

On Monday, October 29, the animal was euthanized by owner’s direction and posted. The post-mortem report was as follows: stenosis of the opening from nasopharynx into pharynx, 1 cm. in diameter; soft palate, 3 cms. in thickness; emphysema of lungs, no abscesses in lungs or other gross lesions.

—Lawrence H. Birchmier ’58

Surgical Correction of a Case of Traumatic Pericarditis. A 5 year old Holstein cow was entered into the clinic with a history of loss of condition for approximately 4 weeks. She gave birth to twins 10 days previous to the date of admission to the clinic. Both calves were healthy and doing fine. No pronounced symptoms of traumatic pericarditis had been exhibited until 1 or 2 days prior to entrance to the clinic.

The following symptoms were noted upon examination: temperature of 103 degrees; subcutaneous edema of the intermandibular space and brisket area; “slushing” heart sounds noted upon auscultation; rapid, weak pulse; rapid respirations, mainly of the abdominal type; pale mucous membranes; diarrhea; exudate in the pericardial sac detected by needle puncture; and a severe metritis.

The cow was eating and ruminations were nearly normal. No pain was exhibited upon palpation of the xiphoid area.

A diagnosis of traumatic pericarditis was based on the heart sounds, edema, and the presence of exudate in the pericardial sac.

The prognosis was very unfavorable, especially with the accompanying metritis.

The animal was given to the clinic for experimental purposes so it was decided to do a Pugh operation which consists of removing a portion of the 5th rib, and incising the pleura and pericardium, allowing the exudate to drain to the exterior.

An area over the left fifth rib, extending from 1 inch ventral to the costo-chondral junction to approximately 10 inches above the junction, was shaved, scrubbed and disinfected with alcohol. The subcutaneous tissues and muscles were infiltrated with four per cent procaine. The operation was performed with the animal in standing position.

Incision after Pugh operation completed.

An incision was made directly over the fifth rib extending from the costo-chondral junction dorsally for approximately six inches. The incision was continued through the underlying tissues until the rib was exposed. A small portion of the muscle tissue was removed from directly over the rib to facilitate the removal of a section of the rib. The intercostal muscles were detached from the fifth rib by blunt dissection. An obstetrical wire saw was placed between the medial surface of the rib and the pleura at the dorsal aspect of the incision and the rib was sectioned at this point. The intercostal muscles were then dissected away ventrally to the costo-chondral junction. The section of the rib was then disarticulated. The pleura was next incised and it was

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found to be adhered to the pericardium. A small incision was made in the pericardium allowing the foul-smelling exudate to flow slowly from the opening. After most of the pressure had been relieved, the incision in the pericardium was enlarged. A total of approximately 3/4 gallon of exudate was drained from the pericardial sac. The pericardium was 1/2 inch thick and very friable and the pleura was also thickened and necrotic.

The pericardial sac was irrigated with sterile saline and two tubes of Insti-lysin® were instilled into the sac.

The tag ends of tissue were debrided and the wound was left open so that maximum drainage would occur. The cow ate shortly after the operation and was not extremely depressed. Two Uterase® bolts were placed into the uterus and she was given 30 mg. of stilbesterol intramuscularly.

The thoracic incision was cleaned daily and dusted with sulfanilamide powder. There was not much drainage from the pericardial sac following the operation.

After five days the animal showed some improvement but it was unlikely that complete recovery would occur. Therefore the animal was posted so that the extent of the damage might be observed.

The necropsy revealed a piece of wire penetrating the reticulum and a fistulous tract leading to the pericardial sac. There were adhesions present around the pericardial sac. The uterus was enlarged and contained a purulent exudate. Abscesses were present in the liver and lungs.

1. Insti-lysin: papain, 50 mg.; procaine penicillin G., 500,000 units; dihydrostreptomycin, 100 mg.; phthalysulfacetamide, 500 mg.; sulfathiazole, 500 mg.
2. Uterase: papain optimo grade, 30 gr.; tyrothricin 30 mg.; sodium bicarbonate base.

—Joseph R. Kriehel '57

Femoral Neck Fracture. The rising incidence of femoral neck fractures has presented the controversial subject of the circulation to the femoral neck.

One thought is that the blood supply to the femoral neck is via the articular capsule and the round ligament, but an opposing idea suggests the area is maintained through the periosteum and cancellous bone.

A case presented to the Stange Memorial Clinic on October 29, 1956, supports the former idea. A one year old male Great Dane entered the clinic with a severe lameness in the left rear leg and he was in poor condition.

The history revealed the dog had been involved in an automobile accident two months previously with apparently complete recovery occurring in a few days. The general condition declined for a period of six weeks thereafter and then a severe lameness became evident for one week prior to entrance to the clinic. Further examination and x-ray revealed an epiphysial fracture of the femoral neck.

Various methods of treatment such as prosthesis, immobilization and pinning were discussed, but the owner chose to have the animal euthanized.

Postmortem examination revealed a severe degeneration of the femoral neck but the head of the femur was in excellent condition and was in apposition with the acetabulum which also was normal. The articular capsule and round ligament were normal. The fractured edges had become smooth and round and were forming a "false joint."

One could speculate that the temporary lameness occurred during the formation of the "false joint" and was relieved once the smoothness was accomplished. One could further speculate that the circulation to the femoral neck from the capsule and round ligament could have been severed and the lack of blood supply produced the necrosis of the femoral neck resulting in the severe lameness the dog manifested upon entrance to the clinic.

It seems important to realize the derivation of the circulation so as to select the approximate surgical procedure used in treatment of femoral neck fractures.

—Paul Leonard '57

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