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A Skin Graft in the Equine

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A Skin Graft in the Equine. A one year old filly was admitted on Dec. 2, 1956, with a spherical mass of granulation tissue 5 inches in diameter on the right hind fetlock. A similar mass was removed surgically about 9 months previously, but grew back because of constant movement of the fetlock and poor circulation of the lower limb.

On Dec. 3, 1956, the animal was put on the operating table after having been given 50 cc. of Equitol® (Allied Laboratories; each 500 cc. contains chloral hydrate, 21.3 Gm., pentobarbital, 4.8 Gm., and magnesium sulfate, 10.6 Gm.). A ring block was used of 4 percent procaine to anesthetize the right hind lower limb 6 inches above the fetlock. The mass of granulation tissue was removed with a firing iron down to about five-eighths of an inch above the level of the surrounding skin. The base, which was three and one-half inches in diameter, had three tunnels made in the five-eighths of an inch of granulation tissue left behind. In these one-inch wide tunnels or slits were put three strips of skin from the neck with as much subcutaneous tissue removed as could be with a Bard Parker scalpel. The whole operative procedure was done with very much emphasis on sterile technique and with clipping, shaving, scrubbing, and chemical disinfectants used. Fifteen hundred units of tetanus antitoxin were given. In spite of all precautions this graft became necrotic and sloughed off on about Dec. 16, 1956.

On Dec. 28, 1956, the animal was again prepared for surgery as before. From an area shaved on the neck and disinfected, a Brown dermatone was used to cut a (.050 of an inch) split thickness graft. A split thickness graft consists of only half the skin and does not include the hair follicles. The donor area is not sutured and the stratum germinativum left grows new skin. The donor area appears only scarified and reddened. The graft from the neck was trimmed to just cover the freshly debrided area on the fetlock. Great care was taken to obtain hemostasis because collection of blood under the graft would clot and result in no nutrition in the area of the clot. A four by four inch Telfa pad was sutured to the skin around the area with eight sutures to hold the graft firmly in place and provide pressure to prevent hemorrhage. (Telfa pads are
Right hind fetlock showing area where granulation tissue was removed and a successful split thickness graft was placed.

made of an absorbant material inside an envelope of non-irritant plastic with many minute perforations. They absorb exudate but do not adhere to a wound thus causing no irritation when removed.) The fetlock was bandaged with gauze and tape for added protection to the graft.

After 7 days the bandage was removed for the first time and the graft looked viable. A gauze bandage was again applied after Polyotic® ointment (Lederle; brand of tetracycline) was applied and Telfa pads placed on the graft. On Jan. 10, 1957, the fetlock graft was unbandaged and left unbandaged. For the next 7 days ointments were applied twice to keep the graft soft and on Jan. 17, 1957, the animal was discharged with a successful graft without hair follicles or hair.

—B. D. Maney, '57

2 Diaphragmatic Hernia in a Cat.

On Jan. 1, 1957, a 1½ year old domestic shorthair cat was admitted to Stange Memorial Clinic. History revealed that the patient had been coughing and sneezing since the latter part of December. Peculiar breathing had been noted since the cat had a fight with a dog about a year earlier.

The patient appeared alert and well kept. Auscultation revealed pulmonary congestion and muffled heart sounds. Respiration were abdominal in nature and were 40 per minute. Dyspnea was noted when the hind legs of the cat were elevated. The thorax was greatly enlarged. A small nodule of connective tissue was noted just lateral to the xiphoid cartilage. A fluoroscopic examination revealed abdominal organs within the thorax. The fluoroscopic examination confirmed the tentative diagnosis of a diaphragmatic hernia.

The abdominal surgical approach was used to correct the diaphragmatic hernia. One cc. of Demerol® (Winthrop Stearns) (50 mg. meperidine) was given intramuscularly as a preanesthetic depressant. A large area over the abdomen was clipped, shaved, cleaned, defatted and phenyl mercuric nitrate applied. The patient was anesthetized using pentobarbital sodium. A Prothoracic Respirator® with a tracheal tube was used to apply artificial respiration immediately after the anesthetic had been given. The abdominal incision was made just caudal to thorax and continued caudally for 4 to 5 inches.

Exploration revealed a large rent in the diaphragm. The rent was on the mid-line and extended up to the vena cava and esophageal hiatuses. There was also a smaller tear which extended to the right side of the rib cage. The thorax contained a great deal of the abdominal organs. The entire liver with the exception of the left anterior lobe extended into the thorax. Small intestines and a loop of the large intestine were included.

Little pathology was noted. No adhesions were present. The liver was firm, enlarged and dark bluish red indicating a