

Perineal Hernia In The Dog

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PROTUSION of viscera through the greater sciatic foramen of the pelvis is commonly known as perineal hernia or perineocele. It appears as a fluctuating mass lateral to the anus and may be either unilateral or bilateral. Although all breeds are affected, Boston Terriers, English Bull Dogs, French Bull Dogs, and Boxers are the most frequent sufferers. This condition is encountered in both sexes and is most common in older dogs.

Before arriving at a diagnosis it is well to consider the possibility of tumors or a rectal diverticulum. Either of these conditions can readily be differentiated from perineal hernia by palpation. If a tumor occurs in this region, it will be firm to the touch and resist any attempt at reduction. Digital palpation through the rectum will readily disclose the presence of a diverticulum. When a hernia is palpated, it is unusual to find it firm to the touch and very frequently it can be reduced either partially or completely. Many times careful palpation will reveal the nature of the contents.

Contents Of Hernial Sac

The hernial sac invariably contains greater omentum. Hematomata in various stages of healing, as well as fibrous nodules, may be spread throughout the herniated omentum. It is not unusual to encounter adhesions of the omentum to surrounding tissues. Fluid in varying amounts may also be present. The prostate and even the bladder are sometimes

herniated in the male. If such is the case, castration should be made part of the surgical procedure. On occasion, other posterior abdominal organs such as intestine and uterus may add to the variety of the contents.

The size of the hernia is extremely variable. In cases where it is bilateral and excessive in size, due warning should be given the client regarding possible recurrence in the future. Satisfactory repair can usually be expected from patients with bilateral hernia if they are in reasonably good health and the repair is undertaken in 2 stages.

Treatment In Two Stages

After one side is treated and healed about 1 month should elapse before attempting the other side. Cases that are senile, enfeebled, or uremic are extremely poor surgical risks. Careful selection of patients for surgery is important. It is often wiser in the case of a dehydrated, emaciated, or anemic subject to delay surgery for a few days until the body can be brought into better balance through the use of glucose, saline, amino acids (Parenamine), blood, liver extract, or other indicated supporting treatment.

Wherever possible, preparation should be started 24 hours prior to the operation. Food should be withheld and 5 per cent glucose W/V in normal saline given subcutaneously or intravenously to maintain the fluid balance or improve it. Four to 6 hours prior to surgery an enema of warm water and sodium bicarbonate (1 teaspoonful to each pint of water used) is

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administered. An area including the hernia and 4 inches from its perimeter is clipped close to the skin or shaved. This area is thoroughly scrubbed with soap and water.

Instruments to be sterilized in preparation for herniotomy should include a scalpel, surgical scissors, 2 Allis forceps, 6 Kelly type forceps, and sufficient suture material for both muscle and cutaneous closure. For added convenience, a needle holder and muscle retractors may be included. Dry sterilization of drapes and gauze pads (to be used as sponges) is to be preferred.

Anesthesia

The surgeon may choose ether, pentobarbital sodium, or pentothal sodium for the production of anesthesia. Our choice usually is pentobarbital in operations of this nature. If there is any doubt as to the reaction of patient because of age or obesity, 1.5 cc. of coramine is added directly to the nembutal and mixed in the syringe before injecting. When adequate assistance is at hand, pentothal may be used to advantage. After surgical anesthesia has been produced by the intravenous method, the patient is ready to be positioned for the operation.

The subject is placed on a flat topped table in a sternal position with the legs extended. The hind legs are secured at one end of the table so that the operator may stand directly behind the patient. The forelegs are secured in a forward position with the head resting between them. In long tailed subjects, the tail is fastened over the back. This position will give a good exposure of the operative area. Other positions have been recommended, but our experience in their use is limited.

As soon as the patient is in position, the site of operation is completely treated with antiseptic. Seventy per cent alcohol thoroughly sponged over the area is entirely satisfactory. A purse string suture is next placed in the anus as a safeguard against contamination from the rectum.

In order to insure an aseptic procedure, the surgeon should cleanse his hands well and use sterile gloves. The area is prop-

erly draped and the incision made through the skin. Commencing at a point about midway between the tuber coxae and the tuber ischii, and halfway between the midline and the lateral border of the pelvis, carry the incision parallel to the midline down to the ischial arch or slightly below.

Since the hernial sac lies close to the skin, it is important that the incision be made just through the skin. The skin is grasped with Allis forceps and the sac separated from the subcutaneous tissues by blunt dissection. The perineal artery passes over the ischial arch near the ventral end of the incision and should be avoided if possible during the separation of connective tissue surrounding the sac. It is important to exercise care in opening the sac so that the contents will not be injured. If the omentum is damaged by adhesions, the damaged portions should be ligated and amputated. Other herniated organs are replaced through the opening in the pelvis. Theoretically the hernial ring is bounded medially by the rectum, the coccygeus, and the retractor ani. Laterally, it is bounded by the sacro-iliac ligament, pelvic fascia, and the original ends of the gluteus profundus, the piriformis, and the biceps femoris. Distortion of the musculature in this region following hernia usually leaves one in such doubt as to the actual structures involved that repair is undertaken without trying to distinguish one muscle from another.

Use Available Tissue

Any muscular tissue available is used to build as strong a wall as possible across the hernial ring. It may even be necessary to use the wall of the rectum for part of the anchorage. Suture material may be either number 1 plain or chromic catgut or number 0 twisted silk. It is preferable to use a suture material with curved needle attached and work with a needle holder. This will simplify suturing in the deeper less accessible parts. Sutures should be of the interrupted type and placed close together. At least 3 layers of muscle should be overlapped, alternating the suture line, first vertically, then

horizontally. This may be further strengthened by dissecting a flap of perineal fascia, folding it over the repair and suturing it firmly in place.

To complete the perineorrhaphy, the skin flaps are trimmed with surgical shears so that the edges approximate without tension and are sutured with interrupted sutures of number 12 braided silk, number 3 Dekanatal, or any dermal suture of sufficient diameter to avoid cutting. Needless to say, the purse string of the anus is removed at the conclusion of surgery. A certain amount of swelling will be encountered the first few days postoperative.

The patient is not bandaged because of the location and the complications involved. Some type of restraint should be used, however, to keep the animal from tampering with the sutures. We use a stall made from a dog harness and a collar on either side of which is fastened a board. This allows the patient freedom but prevents him from reaching his rear parts with his head.

Patients that respond slowly and lack appetite may be fed intravenously. It is well to omit saline the first few days in order to avoid salt edema at the operative area. Five per cent glucose in distilled water with the addition of Parenamine is suggested for postoperative intravenous feeding. Recovery is usually uneventful and sutures may be removed in about 7 days.

Lucite Patches For Arteries

At the Cleveland meeting of the American College of Surgeons Dr. Charles A. Hufnagel of Harvard Medical School told of using lucite tubes to bring together the severed ends of the aortas of dogs. The technique was developed on human patients during the war. The lucite tubes apparently are permanent. Autopsies on the animals revealed the tubes after 6 months firmly held in place by connective tissue fibers growing from the arteries.

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