Procedure:

Purse string suture:

In **large animals**, caudal epidural anesthesia is suggested to reduce straining, facilitate repositioning of the prolapse, and permit surgical manipulations. Reduction and retention with a purse-string suture is recommended. The suture should be loose enough to leave a one-finger opening into the rectum in pigs and sheep, and slightly larger in cattle and horses. Rectal prolapse in mares, if neglected, can lead to prolapse of the small colon. The blood supply to the small colon is easily disrupted. Replacement of a rectal prolapse with prolapse of the small colon followed by purse-string suture of the anus has a poor prognosis. More aggressive treatment of the prolapse is dictated by the condition of the rectum. In general, the prolapse may be salvaged by conservative measures, unless obvious deep necrosis or trauma to the tissue exists, or the everted tissue is firm, indurated, and cannot be reduced. Under these circumstances, submucosal resection or amputation should be considered. Amputation of the rectum should be reserved for severe cases. Complete amputation has a higher incidence of rectal stricture formation, especially in swine. A prolapse ring, syringe case, or plastic tubing may be used as an alternative to surgical amputation in pigs and sheep. Postoperatively, the animal should receive antibiotics.

Use of rectal rings:

For this surgery, desired instruments include hemostats, scalpel blade, scissors, thumb forceps, two 18-gauge needles (or Steinman pins) 3 to 6 inches long, suture material, and a small-diameter rubber tube (optional). Surgery is performed after administration of epidural anesthesia. When a tube is used as a stent in the rectal lumen, the tube is inserted and fixed in the rectum by inserting the two needles through the rectum at right angles to each other so that they pass through the rectum and tube and emerge from the opposite side. The dissection is started about a centimeter from the mucocutaneous border where the mucosa is still healthy, and the entire circumference of the exposed mucosa of the rectum is cut down to the serosa of the inner wall (Fig. 3). Hemorrhaging usually is minor and is controlled with gauze until all the layers have been dissected and the dorsal artery of the rectum is cut. Once the dissection is completed around the prolapse the rectum is held in place by the needles. The cut ends of the rectum should be sutured together using size 0 absorbable suture material in a cruciate pattern (Fig. 4). After the rectum has been sutured (Fig. 5), the needles are pulled from the tube, and the tube is removed from the rectum. The rectum is allowed to retract into place.

