**Tie Back Intra-Op Complications**

Intraoperative complications include hemorrhage from deep in the surgical site, needle breakage, perforation of the laryngeal mucosa, and prosthetic suture “cut-through” of either the cricoid cartilage or muscular process of the arytenoid cartilage. Significant hemorrhage can arise from the plexus of laryngeal vessels that are inadvertently punctured as the needle is passed through the cricoid cartilage and CAD muscle. Temporary packing with sponges often slows bleeding and allows the placement of the prosthetic suture through the muscular process. Hemorrhage usually stops or reduces significantly when the suture is tightened and tied. Therefore, the surgery should be hastened to accomplish tying of the suture as soon as possible. Breakage of the needle when passing through cartilage can occur and all reasonable effort should be made to retrieve the broken portion. If unsuccessful because the needle is embedded in cartilage or buried in the adjacent soft tissues and has not penetrated the lumen of the larynx, the needle is left because extensive dissection increases the risk of postoperative dysphagia. The needle is clearly visible with radiography of the horse’s larynx, and owners should be informed of the complication. When the prosthetic suture is tightened, suture pullout from either cartilage is a serious problem. The suture must be replaced, avoiding the damaged portion of the cartilage and using less tension. In this instance, a second suture is always used to secure the arytenoid cartilage in an abducted position. Damage to the muscular process from suture pull out can necessiatate placing the new suture at 90 degrees to the original and farther down the spine of the muscular process to minimize the opportunity of a repeat complication. Perforation of the laryngeal mucosa is most likely to occur when placing the needle under the caudal border of the cricoid cartilage. If this goes unrecognized until after recovery and the suture is seen during postoperative endoscopy, infection of the suture and possibly the cartilage can be expected unless the suture is removed. Intraoperative videoscopic examination immediately after both sutures have been passed through the cricoid cartilage will prevent this complication.