

Suture for Gastropexy: Time to Engage Barbs?

Prophylactic gastropexy reduces the incidence and recurrence rate of life-threatening gastric dilatation-volvulus (GDV). New suture materials have decreased surgical time in human laparoscopic surgery. The objective of this controlled clinical trial was to compare laparoscopic gastropexy using traditional intracorporeal knots versus 2 types of self-anchoring barbed sutures (Quill, surgicalspecialties.com; V-Loc, covidien.com) with barbs that engage the tissue and thus do not require knot tying.

Thirty dogs weighing over 16 kg were randomly assigned to 1 of 3 laparoscopic gastropexy groups: group 1 (control) with intracorporeal 2-0 polydioxanone sutures; group 2 with 0 Quill barbed sutures; and group 3 with 2-0 V-Loc barbed sutures. Mean gastropexy suturing time was

significantly longer for group 1 (36 min) than for groups 2 (20 min) and 3 (19 min). Total surgery time was also significantly longer for group 1. There were no significant complications in any group. Follow-up ultrasonography at 1, 3, and 6 months postoperatively—as well as laparoscopic examination of 1 dog each from groups 2 and 3 at 6 months—confirmed that all gastropexies remained intact.

■ Commentary

Laparoscopic gastropexies have been performed in the U.S. for more than 13 years for GDV prevention. For many of those years, suturing outside of the body was easier than cumbersome knot tying inside the abdomen. In this experiment, equivalent sutures from 3 different companies were compared, with only 1 of them requiring a knot. All gastropexies healed

well, no major complications occurred, and all clients were satisfied and would recommend the procedure to a friend.

Based on this study, the barbed, knotless suture provided for a quicker surgery than the traditional suture with knots, seemingly with no downside. The barbs held the tissue well, but meticulous placement is important to avoid penetrating the gastric lumen. My experience with barbed sutures is positive.—*Jonathan Miller, DVM, MS, DACVS*

■ ■ Source

Evaluation of two novel self-anchoring barbed sutures in a prophylactic laparoscopic gastropexy compared with intracorporeal tied knots. Spah CE, Elkins AD, Wehrenberg A, et al. *VET SURG* 42:932-942, 2013.

Fibrosarcoma Caused by Subcutaneous Port?

Management of chronic kidney disease (CKD) frequently requires daily administration of subcutaneous fluids. A fluid port may be surgically implanted in tissue to decrease the pain and stress from daily injection. A 20-year-old, castrated, domestic long-haired cat diagnosed with CKD had a GIF tube surgically placed in the dorsal cervical region as per manufacturer's instructions in February 2007. In February 2011, the tube was removed because of slow flow through the port; a similar tube was placed slightly caudal to the original 1 week later. Tube flow became slow and painful 1 month after replacement, and tube culture yielded heavy mixed bacterial growth. Tube flow again slowed about 2 months later, and bacterial culture was positive for a different bacterial species. One month later, a firm mass was palpated at the port insertion point, the

device was removed, and the cat was referred for internal medicine consultation. Core mass biopsy revealed a grade 2 soft tissue sarcoma. The mass was managed with antimicrobial therapy and tie-over bandages, until the cat was euthanized because of declining health. Necropsy revealed a discrete SC mass that extended along the dorsum following the path of the GIF tube; histopathology revealed that the mass was a mesenchymal neoplasm. This is the first known report of a fibrosarcoma arising at the site of a SC fluid tube implant in a cat. It has been theorized that chronic inflammation leads to increased cellular turnover and other biochemical changes that collectively contribute to malignant transformation.

■ Commentary

Many feline practitioners avoid GIF tubes

and similar devices because infections and clogging of the tube are common and eventually encountered. This has been my experience as well. On the other hand, I have spoken to a few practitioners who have successfully used subcutaneous fluid ports in some patients for ~1 year before problems ensued. Based on this report of a fibrosarcoma likely associated with a GIF tube, use of these tubes may carry an additional long-term risk. For some feline patients, an esophageal- or gastric-feeding tube may be an alternative, not only for providing fluids but also for nutrition and medications.—*Glenn A. Olah, DVM, PhD, ABVP (Feline)*

■ ■ Source

Subcutaneous fluid port-associated soft tissue sarcoma in a cat. McLeland SM, Imhoff DJ, Thomas M, et al. *J FELINE MED SURG* 15:917-920, 2013.