

Special Article – Laparoscopic Surgery

Sliding and Self-Locking in Laparoscopic Bariatric Sutures

Aniceto B*, Carlos S, Rafael B, Marcelo B and Nieves P

San Jorge de Alcoy Regional Hospital and Clinic, Lebanon

*Corresponding author: Aniceto Baltasar, San Jorge de Alcoy Regional Hospital and Clinic, Lebanon

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Clinical Image

The reinforcement of the staples suture line can be made with different materials. The continuous enveloping suture of the entire line, including the omentum, may be best.

In our institution, we have a vast experience of patients operated with duodenal switch (DS) and laparoscopic vertical gastrectomy (LVG). We use a 12 mm intragastric probe as a guide and we devascularize all the greater curvature *passing pylorus*.

We initiate the gastrectomy from the pylorus with sequential staplers up to the esophago-gastric junction and routinely try to prevent hemorrhages and leaks in the staple line with a reinforcing suture that includes *omentum and the posterior and anterior gastric walls* along the entire length of the gastric staple line. The objective of using the divided omentum together with the suture line is to avoid rotation of the gastric tube.

Knotting in this upper part of the gastric tube is not an especially easy task on the morbidly obese. The scrub nurse creates a sliding knot at the end of the 3/0 polypropylene suture, with a double extracorporeal loop to avoid the need for an intra-corporeal knot.

The surgeon clamps and holds the thread very close to the needle with his left hand and introduces it into the abdomen by trocar of 10. Once in the abdomen, he holds the needle with the needle holder in the right hand and begins suturing *both gastric walls and omentum*. Pulling the already knotted thread completes the first knot and makes the procedure quick and easy, without having to make knots in the abdomen.

The suture of the staple line is continued down to the middle and ends with the application of the Aberdeen knot at the end of the suture line. A second similar maneuver begins in the middle of the line of staples, until ending in pylorus.

The objective of using this sliding self-locking knot at the beginning of the suture line is to avoid intra-corporeal knotting. Aberdeen knotting is also very simple and has the same sliding effect. In this way there is no need for another intra-corporeal knotting maneuver.

Description of the technique

First, we create a sliding loop at the end of a 3/0 polypropylene thread (Figure 1), the needle holder is passed through this loop, and

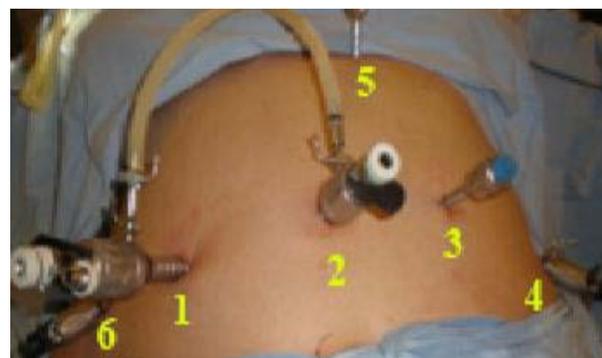


Figure 1: Port 1 is 12 mm and is the "working" port.

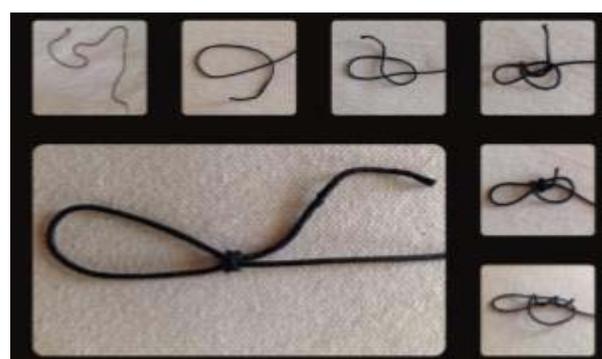


Figure 2: The scrub nurse makes the sliding knot.

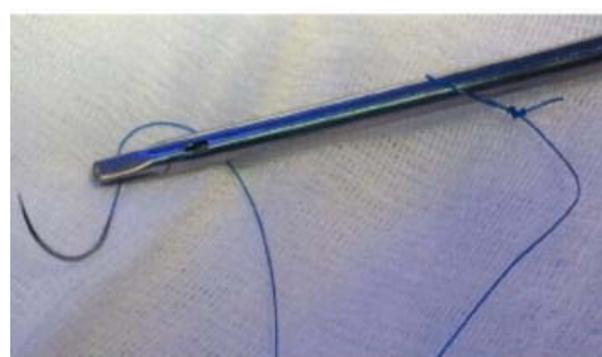


Figure 3: The needle-holder grasps the thread close to the needle.

with the needle holder, we grasp the suture very close to the needle before entering the abdominal cavity (Figures 2 & 3). The needle holder is introduced through a 12 mm port and start the stitch by first taking the omentum and then a sero serosal stitch high in the angle of His.

To date, there are no data available in the literature that strongly

demonstrate the differences in terms of leakage rates between reinforcing materials in the GVL [1-5]. However, neither have we had a single leak in the last 478 suture lines.

Daes [5] is the first to describe this suture in 2013 and we add [6,7] the omentum-plastic to the rest of the line of staples that avoid torsion of the gastric tube and then others have followed [8,9].

We routinely use now the self-blocking knot to initiate all the sutures of the laparoscopic digestive and it is finished off with the Aberdeen knot.

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