

Amici-Larciprete knotless technique. An easy way to suture in laparoscopy

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The following technique has been developed from observation of the original Amici celioscopic suture.

Suturing and knot tying are basic skills for surgeons. Performing these tasks laparoscopically can be a tedious, time-consuming endeavor associated with much frustration [1].

Laparoscopic intracorporeal knot tying in minimally invasive surgery is an advanced skill and mastering this skill is an arduous process with a long learning curve. Recent advances in instrumentation have allowed easier suturing and tying, up to now.

Attempts have been made to modify the suture materials and instrumentation in order to facilitate this process. The Endo Stitch suture device was developed to facilitate sutures, reducing the amount of time needed for placement of stitches and knot tying in reconstructive laparoscopic procedures requiring multiple suture planes [2].

This tool has been shown to also be encouraging for inexperienced residents reducing the learning curve [3].

The pre-looped intra-corporeal knot was described as an interesting alternative to extracorporeal classic suturing [4] and a variety of combined instruments have been reported with both needle-holding jaws and loop-forming members, in order to use a single tool to make an easy suture.

We evaluated a new method for performing the basic tasks of intracorporeal suturing and knot tying.

Basically we used a Vicryl 1-15 cm long stitch (Johnson & Johnson Int., St. Stevens-Woluwe, Belgium) with a curved atraumatic needle. Firstly we put a clip (Ligaclip MCA, Ethicon Endo-Surgery, LLC, Johnson & Johnson) at the end tip of the stitch, then we pass the needle within the tissue surfaces to be closed. Thus the suture is fixed at the beginning.

Then a continuous suture is used. After we pass the needle the last time at the end of the tied suture, we put the second clip on the stitch close to the tissue, tying the suture with the other hand, providing an adequate closure of the surgical margins of the wound (Figure 1).



Figure 1. — Continuous suture with clips at the beginning and at the end tip.

This suture is suitable for myomectomy or supracervical hysterectomy, and in any circumstances in which it could be necessary to suture the myometrium.

The knotless suture provides significant time-saving for surgeons regardless of experience and thus reduces operating room costs. Less experienced surgeons and surgeons in training could benefit the most by the use of this procedure.

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