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HAS SACROSPINOUS VAGINAL VAULT SUSPENSION BECOME EASIER USING A DIGITAL NEEDLE DRIVER?

Aims of Study

To describe the use of a new disposable suturing device in our surgical method for Sacrospinous vaginal vault suspension preformed by palpation only.

Methods

The right Para rectal space is entered through an opening in the vaginal wall. The surgeon's index finger is placed through the vaginal incision in order to palpate the right Sacrospinous ligament. No retractors are used. The finger is then withdrawn and the Digital Needle Driver (DND) is mounted on the index finger leaving its ventral part exposed for palpation. The surgeon's finger with the DND is then placed back into the Para rectal space and the device is guided by palpation and placed just medial to the lateral third of the Sacrospinous ligament. Depression of the DND's external operating box handle advances a needle in controlled circular path through the ligament, penetrating to a fixed depth of (5-6 mm). The firing handle is then pulled back to its starting position pulling a loop of non-absorbable suture material through the ligament. At this time, the device is retrieved from the vagina leaving a loop of suture material anchored onto the Sacrospinous ligament. The procedure is completed in the standard method. Twenty-five women, at Staten Island University Hospital, under the auspices of the Division of Female Pelvic Medicine and Reconstructive Surgery, Department of OB/GYN underwent Sacrospinous vaginal vault suspension using the DND. Additional vaginal repairs for prolapse were performed as indicated. Pre- and postoperative evaluations of surgical outcomes were performed at 3 and 6-month intervals. Intra- and postoperative complications were assessed by review of the operative notes, medical records, and office charts.

Results

Average Patient age was 67.3 ± 10.6 (range 41-84) and average parity was 2.92 ± 1.4 (range 1-7). Patients were followed for an average of 9.04 ± 4.8 months (range 2 to- 18). The Sacrospinous vaginal vault suspension part of the operation was completed in less then 10 minutes. The passage of two sutures through the Sacrospinous ligament in one motion was accomplished in all cases using palpation only. There were no significant intra- or postoperative complications reported. At follow up, vaginal examination with maximal straining demonstrated direct apposition of the vaginal wall to the right Sacrospinous ligament. Postoperative subjective evaluation done by questionnaires given to the patients revealed significant improvement in vaginal prolapse related symptoms compared to the preoperative assessment.

Conclusions

Using the DND in Sacrospinous vaginal vault suspension enabled us to minimize the need for dissection, eliminated the need for placing retractors in order to visualize the ligament and shortened the operative time. The optimal location of the suture and the fixed depth of penetration gives the surgeon complete control of the needle and minimizes the risk of vascular injury.