

Vesicourethral anastomosis using V-Loc™ barbed suture during robot-assisted radical prostatectomy

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KEY WORDS

vesicourethral anastomosis ▶ radical prostatectomy ▶ barbed suture

ABSTRACT

In Europe, localized prostate cancer (PCa) is increasingly treated by robot-assisted radical prostatectomy. This minimally invasive procedure is technically evolving, with benefits to both the patient and surgeon. One of the final steps of the operation is the formation of a watertight vesicourethral anastomosis (VUA). A sub-optimal anastomosis can lead to serious consequences, including acute urinary leak, ileus, prolonged hospitalization and catheterization, urethral stricture, and urinary incontinence. It is therefore highly desirable to develop a simple, reproducible and dependable technique for VUA formation. We report a VUA formation technique using a unidirectional barbed suture (3-0 V-Loc™ 180 absorbable suture, Covidien, Dublin, Ireland).

DISCUSSION

Application of the V-Loc™ suture in VUA formation offers a number of advantages over non-barbed sutures. Specifically, the tissues of the bladder neck and urethra are opposed and secured in position after each needle passage, reducing the need for repeated suture tightening and tissue traction. This technique reduces the operative time and is technically easier, which is of benefit to the surgeon learning robot-assisted radical prostatectomy [1, 2].

REFERENCES

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TECHNIQUE

The VUA is formed using a V-Loc™ suture starting at the 5-o'clock position on the bladder neck and continued hemi-circumferentially from right to left, to the 11-o'clock position on the bladder and urethra. After each needle passage, the mucosa of the bladder and urethra are approximated. The anastomosis is then completed with a second suture, starting at the 5-o'clock position and continuing in a counter-clockwise fashion until the sutures meet at 11-o'clock. There was no need to knot the two sutures.

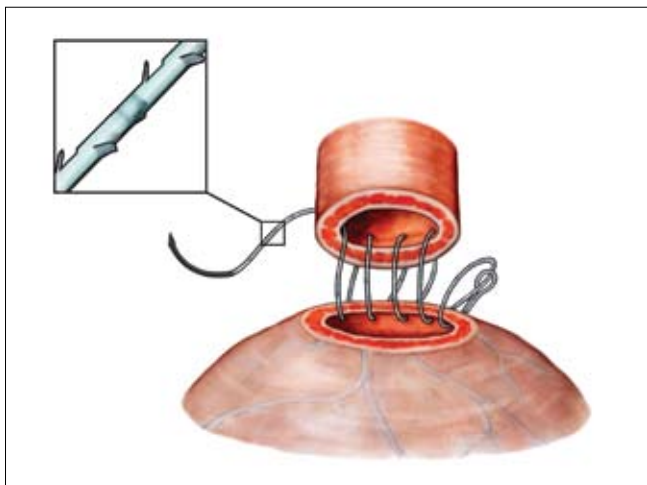


Fig. 1. Application of the V-loc™ suture in VUA formation.

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