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Palleschi G[1], Pastore A L[1], Silvestri L[1], Ripoli A[1], Autieri D[1], Pellegrini P[2], Vacilotto D[3], Macri' D[3], Carbone A[3]
1. *Urology Unit, Faculty Of Pharmacy And Medicine, Sapienza University Of Rome,* ***2.*** *Urology Unit S.Maria Goretti Hospital Latina,* ***3.*** *Urology Unit, S. Maria Goretti Hospital Latina*

SURGICAL AND FUNCTIONAL OUTCOMES USING A NOVEL DEVICE FOR URETHRO-VESICAL ANASTOMOSIS IN EXTRAPERITONEAL VIDEOLAPAROSCOPIC PROSTATECTOMY.

Hypothesis / aims of study
Extraperitoneal videolaparoscopic prostatectomy (VLP) represents a gold standard technique in patients with localized prostate cancer. However, urethrovesical anastomosis still remains one of the most critical step due the possible complications related, especially: urine leaks through the anastomosis, stricture and incontinence which are respectively reported in Literature with a prevalence of 4,5 %, 8% and 12%. The aim of this study was to evaluate functional outcomes and complication rate of a novel technique of self-cinching anastomosis using a barbed suture.

Study design, materials and methods
22 caucasian male patients (mean age 62.3 y.o., range 53-69) with localized prostatic cancer were submitted to extraperitoneal VLP (clinical stage: 12 pts T2a, 10 pts T2b). Urethrovesical anastomosis was performed in all subjects using a V-Loc™ 180 absorbable barbed polyglyconate suture which has the property to maintain running suture line tension. The anastomosis was performed by the same surgeon in all the patients. The V-Loc™ 180 absorbable wound closure device consists of a barbed absorbable thread, armed with a surgical needle at one end and a loop end effector at the other. The barb and loop end effector design allow for tissue approximation without the need to tie surgical knots. The V-Loc™ 180 absorbable wound closure device is prepared from a copolymer of glycolic acid and trimethylene carbonate. Catheter was removed in all patients after cystographic evaluation performed 7 days after surgery. Operative anastomosis time, mean catheterization time were evaluated. Stricture incidence, continence recovery time and overall continence rate were observed after 1, 3 and 6 months of follow-up from VLP.

Results
Mean time required to perform anastomosis resulted 12 minutes (±5,7 minutes). The technique appeared easy to perform by the surgeon since the first procedure and reproducible. Mean catheterization time was 8.6 days (range 6-14 days). After 6 months from surgery none patient presents stricture. Continence recovery was as follows: one month of follow-up 10 patients (45%), three months of follow-up 16 patients (72%). After six months of follow-up a total of 90% of patients (20 pts) were socially dry as defined by use of one pad or less per day.

Interpretation of results
Lowering operative time, simplification of surgical procedure reducing the potential complications with preservation of good functional outcomes are expected from the introduction of novel surgical devices, such as V-Loc™ 180 suture. Our preliminary experience confirms data about the use of this technique reported in Literature which shows that it is feasible and improves especially posterior anastomosis reconstruction. Furthermore, continence and complications rate showed by our study, similar to those already reported in published investigations, support this surgical approach and device although all these experiences present a limited case series and need a longer follow-up.

Concluding message
This technique really simplifies the urethro-vesical anastomosis reconstruction that still represents a critical step in the VLP. Time of catheterization, incidence of stricture, urinary incontinence rates seem to be similar to those obtained with other laparoscopic anastomotic techniques, although randomized trials with representative case studies and follow up over time are needed to establish the real utility of this device. The recent introduction of a variant of this suture fitted with a 5 / 8 needle radius curvature allows to further reduce time of bladder-urethral anastomosis

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Was the Declaration of Helsinki followed?	**Yes**
Was informed consent obtained from the patients?	**Yes**