VJY01 Retrotrigonal muscular layer sling associated with total anatomical reconstruction in robotic-assisted radical prostatectomy and early continence

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Zanoni M.L.[1], Grizzi F.[2], Vota P.[1], Justich M.[1], Maffei D.[3], Toia G.[1], Mazzieri C.[1], Malagola G.[1], Mandressi A.[1], Taverna G.[3]

[1]Humanitas Mater Domini, Dept. of Urology, Castellanza, Italy, [2]Humanitas University, Dept. of Immunology and Inflammation, Pieve Emanuele, Italy, [3]Humanitas University, Dept. of Urology, Pieve Emanuele, Italy

Introduction & Objectives: Urinary continence (UC) recovery represents the main non-oncological goal in patients undergoing robotic-assisted radical prostatectomy (RARP). Here we report a new sling technique using retrotrigonal muscular layer (TZ sling) combined with total anatomical reconstruction (TAR) and analyzed our findings in early UC.

Materials & Methods: We analyzed 400 consecutive patients, affected by prostate cancer (PC) at different grade and stage, who underwent RARP between May 2018 and February 2020. Among these, 250 patients before July 2019 underwent only TAR, while 150 patients after July 2019 also underwent TAR +TZ sling. We defined UC as no pad and safety pad 0-1 per die. Early UC was assessed after catheter removal at 1, 4 and 12 weeks using the number of pads used and the International Consultation on Incontinence Questionnaire- Short Form (ICIQ-SF) score. Sling-related operative time and post-operative complications were also analyzed.

Results: In the TAR Group, the UC rates at 1, 4 and 12 wk after catheter removal were 58%, 66% and 86%, respectively. In the TAR +TZ sling group the UC rates were 72%, 76% and 88%, respectively. A statistically significant difference was observed in the two groups at 1 wk (p=0.0049) and 4 wk (p=0.035) favouring the TZ Sling surgical strategy. This difference in UC rates was lost at 12 wk (p=>0.05). No statistically significant differences in operative time (p=NS), acute urinary retentions (p=NS) and other complication rates were observed between the two groups (p=NS).

Conclusions: In conclusion we have described a new, safe, feasible and reproducible modification of RARP using a sling with the retrotrigonal muscular layer (TZ Sling) associated with TAR. We have demonstrated a statistically significant improvement in early UC continence rate in patients who are undergoing TAR and TZ sling compared to those undergoing only TAR during RARP.