MP19-13: The anterior urethrovescial angle measured on postoperative cystography can predict urinary incontinence after robot-assisted laparoscopic radical prostatectomy (Abstract)

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Purpose: Robot-assisted laparoscopic radical prostatectomy (RALP) is associated with complications including urinary incontinence. And the urinary incontinence can be short-term and long-term. We evaluated early urinary continence in a set of consecutive patients who underwent conventional RALP (CON-RALP) and Retzius-sparing robot-assisted laparoscopic radical prostatectomy (RS-RALP) to identify the useful predictors of postoperative urinary incontinence as determined by postoperative cystography. ***Materials and Methods:*** The final study consisted of 121 patients who underwent CON-RALP (n=61) and RS-RALP (n=60) for localized or local advanced prostate cancer. Postoperative cystography was performed within7-10 days after RALP. The ratio between the horizontal and longitudinal length (H/L) of the bladder, the position of the urethrovesical junction (UVJ) quantitatively calculated by BNPS ratio, the anterior urethrovesical angle (aUVA), posterior urethrovesical angle (pUVA) as seen on the cystogram were evaluated. Postoperative continence status was defined by no pad or a safety pad usage after catheter removal. The association between these vairables and urinary incontinence was then analyzed. All patients were followed for at least 3 months postoperatively. ***Results***: The

demographic and intraoperative data showed no difference between this two groups. And the postoperative pathologic-related information like the T staging and surgical margin showed no significant difference. Postoperative cystographical parameters such as the aUVA, pUVA and H/L ratio showed statistical significance. Continence recovery rates of conventional RALP at 2 weeks, 1, 2 and 3 months were 14.8%, 19.7%, 34.4%, 62.3% respectively. And the continence recovery rate of RS-RALP at 2 weeks, 1, 2 and 3 months were 30.0%, 38.3%,51.7%,73.3%. The continence recovery rates differed significantly at 2 weeks, 1 and 2 months. On univariate analysis, patients' age, were independent risk predictors of urinary incontinence. In multivariate analysis, urinary incontinence was significantly associated with H/L ratio, nerve-sparing technique at 2 weeks. At 1 month, the urinary continence was significantly correlated with age, nerve-sparing technique, aUVA. The independent risk factors at 2 month included age, nerve-sparing technique, aUVA, BNPS ratio. The multivariate logistic regression analysis just showed aUVA was related to the urinary incontinence at 3 months postoperatively. ***Conclusions:*** RS-RARP facilitate the recovery of early urinary continence after surgery. A larger aUVA measured on postoperative cystography is a useful and independent predictor for short-term urinary incontinence after RALP. Advanced age, nerve-sparing technique, larger aUVA, larger BNPS ratio, lesser H/L ratio will increase the risk of early urinary incontinence.