

MP97-10**CAN WE MODULATE THE EXTENT OF NODAL DISSECTION ACCORDING TO THE PREOPERATIVE RISK OF LYMPH NODE INVASION IN PROSTATE CANCER PATIENTS UNDERGOING RADICAL PROSTATECTOMY?**

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INTRODUCTION AND OBJECTIVES: An extended pelvic lymph node dissection (ePLND) should be considered in prostate cancer (PCa) patients undergoing radical prostatectomy (RP) at increased risk of lymph node invasion (LNI). However, whether the removal of presacral and common iliac nodes should be included is still a matter of debate.

METHODS: 4,790 PCa patients treated with RP and an anatomically defined ePLND between 2003 and 2016 at a single center were identified. The risk of LNI was calculated according to the Briganti nomogram. The number of positive nodes and the proportion of patients with positive nodes in the common iliac and presacral stations was plotted over the calculated risk of LNI according to the Briganti nomogram using lowess-smoothed fit curve. Patients were stratified according to the risk of LNI in 3 categories: <10%, 10-30%, and >30%. The number of positive nodes and the proportion of patients with positive nodes in the common iliac and presacral stations were compared. Multivariable analyses tested the association between the calculated risk of LNI and involvement of common iliac and presacral nodes after adjusting for the number of nodes removed and pathologic Gleason score.

RESULTS: The risk of LNI according to the Briganti nomogram was <10, 10-30, and >30% in 4,569 (95.4%), 115 (2.4%), and 106 (2.2%) patients. The median number of nodes removed was 16 and 487 (10.2%) patients had LNI. A total of 483 (99.2%) patients had LNI located to the internal iliac, external iliac, or obturator nodes, while 40 (8.2%) and 22 (4.5%) patients had positive nodes in the common iliac and presacral stations. None of the patients with positive common iliac nodes had negative pelvic nodes. The number of positive nodes increased according to the risk of LNI ($P<0.001$). The median number of positive nodes was 1 vs. 3 vs. 5 in patients with a risk <10, 10-30, and >30% ($P<0.001$). The proportion of involvement of the presacral and common iliac nodes increased according to the risk of LNI and was 0.1 vs. 5.2 vs. 10.4 and 0.3 vs. 5.0 vs. 18.9 for individuals with a risk of LNI <10, 10-30, and >30% (all $P<0.001$). The risk of LNI was an independent predictor of the number of positive nodes and of involvement of the presacral and common iliac nodes (all $P<0.001$).

CONCLUSIONS: The presacral and common iliac lymph nodes are involved by nodal metastases in more than 10% of patients with a calculated risk of LNI >30%. An ePLND that includes the dissection of the presacral and common iliac nodes should then be considered in men with a risk of LNI >30%.

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MP97-11**IMPACT OF PREVIOUS EXPERIENCE WITH OPEN SURGERY AND INITIAL ANNUAL ROBOTIC CASELOAD ON POSITIVE SURGICAL MARGIN RATES AFTER ROBOT-ASSISTED RADICAL PROSTATECTOMY**

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INTRODUCTION AND OBJECTIVES: Although previous studies assessed the learning curve phenomenon associated with the introduction of robot-assisted radical prostatectomy (RARP), evidence

is scarce regarding the impact of previous experience with open radical prostatectomy (ORP) as well as annual robotic caseload on outcomes.

METHODS: We evaluated the first ≤ 200 patients with localized prostate cancer treated with RARP by 6 surgeons between 2006 and 2016 ($n=1,010$). Patients were stratified according to previous experience with ORP of the surgeon (no experience vs. at ≥ 500 open cases). The rates of positive surgical margins (PSM) were compared using the chi-square test. Multivariable logistic regression analyses assessed the impact of previous experience with ORP on the risk of PSM. Surgeons without experience with ORP were stratified according to their annual caseload during the first 200 cases in two groups: ≤ 40 vs. >40 cases per year. Multivariable logistic regression analyses tested the impact of annual caseload on the risk of PSM.

RESULTS: Overall, 4 ($n=610$) vs. 2 surgeons ($n=400$) had no vs. high experience with ORP. Differences were observed with regards to clinical stage, preoperative PSA, and biopsy Gleason score (all $P\leq 0.02$). The rate of PSM was lower among surgeons with previous experience with ORP (13.8 vs. 22.3%; $P<0.001$). Surgeons with no experience had 2.7-fold higher odds of PSM compared to those with experience with ORP ($P=0.01$). Overall, 2 surgeons with no experience with ORP had a caseload of ≤ 40 RARP per year while 2 surgeons performed >40 procedures per year during their first 200 cases. Among surgeons with no experience with ORP, the PSM rates were different according to annual caseload (33.7 vs. 17.4% for ≤ 40 vs. >40 cases per year). In multivariable analyses, surgeons with a lower caseload had a 2-fold higher probability of PSM ($P=0.001$). No differences were observed in the rate of PSM between surgeons without previous experience with ORP performing >40 procedures per year and their counterparts with experience with open surgery (17.4 vs. 13.8%; $P=0.1$). This was confirmed at multivariable analyses ($P=0.1$).

CONCLUSIONS: Surgical experience with previous ORP reduces the risk of PSM in the first robotic cases. A higher annual caseload of initial robotic cases allowed non-open surgeons to reach PSM rates comparable to what achieved by robotic surgeons with previous significant ORP experience. A sufficient annual surgical caseload in the initial learning curve should be guaranteed to optimize perioperative surgical outcomes.

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MP97-12**CHANGES OVER TIME IN NODE POSITIVE PROSTATE CANCER RATES AND FEATURES AMONG MEN TREATED WITH RADICAL PROSTATECTOMY AND EXTENDED PELVIC LYMPH NODE DISSECTION AT A SINGLE REFERRAL CENTER**

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INTRODUCTION AND OBJECTIVES: The stage migration phenomenon and the introduction of robot-assisted radical prostatectomy (RARP) might have changed the characteristics of prostate cancer (PCa) patients in terms of risk and features of lymph node invasion (LNI).

METHODS: 5,328 PCa patients treated with open radical prostatectomy or RARP and an extended pelvic lymph node dissection (ePLND) between 2005 and 2016 were identified. All nodal specimens were retrieved in multiple packages according to the anatomical location and evaluated by high-volume uro-pathologists. The year-per-year trend of pathologic characteristics was reported. Multivariable (MVA) logistic regression analyses tested the impact of year of surgery and RARP on the risk of LNI and on the site of nodal invasion after adjusting for confounders.

RESULTS: Overall, 3,159 (59.3%) and 2,169 (40.7%) patients were treated with ORP and RARP. Median number of nodes removed increased over time both for ORP and RARP (from 15 to 18 and from

9 to 21; all $P < 0.001$). The proportion of patients with LNI was 11.2% and increased from 10.8 to 16.3% between 2005 and 2015 ($P < 0.001$). Patients treated in more recent years were at higher risk of LNI ($P = 0.001$). In 585 individuals with LNI, median number of positive nodes and maximum diameter of metastases were 2 and 5 mm and did not change over time ($P \geq 0.5$). Overall, 44.8, 73.3, and 15.4% patients with LNI had involvement of the external iliac, obturator, and internal iliac nodes. While the proportion of positive internal iliac nodes increased (from 10 to 37.5%; $P < 0.001$), the rate of obturator nodes involvement decreased (from 80.7 to 42.5%; $P < 0.001$). The proportion of positive internal iliac nodes was higher among those treated with RARP (20.3 vs. 14.1%; $P = 0.05$). At MVA, year of surgery and RARP were associated with a higher probability of positivity in the internal iliac nodes and a lower probability of LNI in the obturator nodes (all $P < 0.001$). No differences were recorded over time and according to the technique in the proportion of positive external iliac nodes (from 43.9 to 52.5%; $P = 0.6$). Overall, 5.5 and 8.9% patients had LNI in the presacral and common stations. The proportion of men with positive presacral and common iliac nodes did not change over time and according to the technique ($P \geq 0.1$).

CONCLUSIONS: We observed an increased proportion of patients with positive internal iliac lymph nodes over time. This was likely related to the introduction of RARP, which may allow for more precise dissection in this area and a more accurate nodal staging.

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MP97-13

ASSOCIATION OF EXTENDED PELVIC LYMPH NODE DISSECTION WITH THROMBOEMBOLIC EVENTS AND LYMPHOCELE FORMATION AMONG MEN UNDERGOING ROBOTIC ASSISTED LAPAROSCOPIC PROSTATECTOMY WITH PELVIC LYMPH NODE DISSECTION

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INTRODUCTION AND OBJECTIVES: Lymphadenectomy (LND) has become increasingly important in the surgical treatment of prostate cancer amidst an inverse stage migration in patients undergoing robotic assisted laparoscopic prostatectomy (RALP). As such, utilization of extended LND (eLND) during RALP has increased. However, eLND may be associated with increased perioperative morbidity, especially thromboembolic events (VTE) and lymphocele formation. We examined the association of eLND with VTE and lymphocele formation in a contemporary institutional cohort.

METHODS: We identified 134 patients in a prospectively maintained institutional database who underwent robotic assisted laparoscopic prostatectomy (RALP) with lymph node dissection (LND) from 1/2014 through 7/2016. Standard (sLND) and extended (eLND) LND were defined as removal of < 13 and ≥ 13 lymph nodes, respectively, based on prior literature. Primary endpoints included incidence of VTE and lymphocele within 90 days postoperatively. Logistic regression was used to evaluate the association of clinicopathologic features with VTE.

RESULTS: A total of 134 patients underwent RALP, including 81 (60.5%) with standard LND (sLND) and 51 (39.6%) with eLND. Median age at surgery was 62 (IQR 57, 67), and median follow-up was 283.5 (IQR 103, 496) days. There were no statistically significant differences in baseline clinicopathologic features across eLND and sLND groups. Overall, median lymph node yield was 12 (IQR 8, 16). The overall rate of TEE was 7.5% with a median time to occurrence of 20.5 (IQR 10, 44) days. The rate of TEE was not significantly different between patients who underwent sLND or eLND (6.2% versus 9.4%, $p = 0.52$). On univariable analysis, only longer operative time (OR 1.02, $p = 0.01$) was associated with VTE. The overall rate of lymphocele was 5.3%, with a median time to occurrence of 44 (IQR 10, 63) days. The rate of lymphocele did not differ between patients who underwent sLND or eLND (7.7% versus 3.8%, $p = 0.44$).

CONCLUSIONS: In this contemporary population of patients undergoing RALP with LND, eLND was not associated with a statistically significant difference in the rate of symptomatic VTE or lymphocele formation when compared to sLND.

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MP97-14

FUNCTIONAL OUTCOME OF RADICAL PROSTATECTOMY AFTER REPEAT BIOPSY

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INTRODUCTION AND OBJECTIVES: To analyse functional outcome of radical prostatectomy (RP) in patients with repeat prostate biopsies (Bx). We investigated whether there is an association between the number of prior Bx and erectile dysfunction (ED) and incontinence after RP.

METHODS: In all, 12,218 patients who underwent RP between January 2007 and March 2015 after a known number of prior Bx were included in the analysis. Number of Bx sessions (range 1 to ≥ 3) was examined as categorical (1, 2 and ≥ 3) variable. The association between number of prior Bx sessions and erectile function, measured by IIEF-score as well as the association between number of prior Bx sessions and continence, measured as use of no or only one security pad was analyzed using multivariable logistic regression model.

RESULTS: Of the 12,218 men 10,771 (88.2%) had only 1 Bx, 1,004 (8.2%) had 2 Bx and 443 (3.6%) had ≥ 3 Bx. More Bx sessions were associated with higher age at surgery (median 65, 65 and 67 yrs, $p < 0.001$). PSA preoperatively was significantly higher in patients with multiple Bx (median 6.6, 7.6 and 10.2 ng/ml, $p < 0.001$) and patients were significantly more often classified as high-risk according to D'Amico (18.2, 16.7, 28.2%, $p < 0.001$). Prostate volume was significantly higher (median 38, 42 and 45ccm, $p < 0.001$) in patients with multiple Bx. IIEF-5 score prior surgery did not differ among Bx groups. Robotic assisted RP was performed more often in patients with multiple Bxs ($p < 0.001$). More Bx sessions were associated with more often performed bilateral nerve sparing (67, 73.5 and 77.6%, $p < 0.001$). In multivariable logistic regression predicting incontinence at 1 year after surgery, patients with 2 vs 1 Bx had a significantly higher likelihood of incontinence (OR 1.26, $p = 0.08$). No difference was seen between patients with ≥ 3 vs 1 Bx session. No difference among groups occurred 2 and 3 yrs after surgery. In multivariable logistic regression predicting ED using IIEF-5 score at 1, 2 and 3 yrs after surgery, no differences occurred among Bx groups.

CONCLUSIONS: Multiple biopsy sessions are not associated with worse erectile function in men undergoing radical prostatectomy. Recovery to continence is slightly prolonged in patients with multiple Biopsies. 3 years after surgery, almost no differences occur among biopsy groups.

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MP97-15

NEW APPROACH: FROM LAPAROENDOSCOPIC SINGLE-SITE RADICAL PROSTATECTOMY (LESS-RP) TO TRANSURETHRAL-ASSISTED LESS-RP (TU-LESS-RP)

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INTRODUCTION AND OBJECTIVES: Conventional laparoendoscopic radical prostatectomy (LRP) is widely accepted as a standard procedure to treat localized prostate cancer (PCa). Recently, the use of transumbilical laparoendoscopic single-site radical prostatectomy (LESS-RP) has grown, as it is less invasive for patients, and we have adopted this procedure for prostatectomy cases. The