

### 33 - PREDICTIVE FACTORS OF NODAL METASTASIS IN PATIENTS WITH ORGAN CONFINED PROSTATE CANCER

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#### INTRODUCTION

To evaluate predictive factors of nodal metastasis in patients affected by organ confined prostate cancer (PCa) who underwent laparoscopic radical prostatectomy (LPR).

#### MATERIALS AND METHODS

From database of our institution, we identified patients undergone a laparoscopic pelvic lymphadenectomy (LAD) and radical prostatectomy. Data on age, BMI, PSA, PSAD, positive cores percentage, clinical stage, Gleason score, lymphadenectomy template, prostate volume, number of removed nodes were available. We correlated these variables with pathological node metastasis by logistic regression analysis (SPSS 24).

#### RESULTS

Data on 390 patients were analyzed. Baseline characteristics are reported in table 1. On univariate analysis, age, PSA, PSAD, clinical stage, biopsy Gleason score, positive cores percentage and risk group were associated with pN1. Surgical and pathological outcomes are reported in table 2. At univariate analysis, pathological stage, Gleason score, positive surgical margins, LAD template and number of removed nodes correlated with pN1. At multivariate analysis, superextended lymphadenectomy was associated with nodal metastasis [table 3].

**Table 1. baseline characteristics**

|                 |              | N0         | N1         | p value |
|-----------------|--------------|------------|------------|---------|
| Pts             |              | 372        | 18         |         |
| Age             | y            | 65.8 ±10.0 | 60.0 ±28.3 | 0.03    |
| BMI             | n            | 26.9 ±3.1  | 28.0 ±3.5  | 0.24    |
| PSA             | ng/ml        | 9.2 ±5.3   | 14.4 ±12.3 | 0.001   |
| Prostate volume | cc           | 54.4 ±20.4 | 58.2 ±28.0 | 0.49    |
| PSAD            | ng/ml/cc     | 0.19 ±0.13 | 0.34 ±0.23 | <0.001  |
| C Stage         | T1c          | 56.0       | 35.3       | 0.01    |
|                 | T2           | 43.6       | 53.0       |         |
|                 | T3           | 0.4        | 11.7       |         |
| Biopsy Gleason  | 3+3          | 36.3       | 5.9        | 0.01    |
|                 | 3+4          | 24.4       | 23.5       |         |
|                 | 4+3          | 22.2       | 23.5       |         |
|                 | >7           | 17.1       | 48.1       |         |
| +ve core %      | n            | 38.6 ±24.0 | 58.3 ±27.3 | 0.001   |
| Risk group      | Low          | 23.7       | 0          | 0.01    |
|                 | Intermediate | 51.3       | 44.4       |         |
|                 | High         | 25.0       | 55.6       |         |

**Table 2. surgical and pathological outcomes**

|                      |               | N0         | N1         | p value |
|----------------------|---------------|------------|------------|---------|
| Pts                  |               | 372        | 18         |         |
| Pathological Stage   | pT2           | 74.9       | 11.1       | <0.001  |
|                      | pT3a          | 17.5       | 22.2       |         |
|                      | pT3b          | 6.7        | 66.7       |         |
|                      | pT4           | 0.8        | 0          |         |
| Pathological Gleason | 3+3           | 12.9       | 0          | 0.02    |
|                      | 3+4           | 33.6       | 5.6        |         |
|                      | 4+3           | 35.8       | 50.0       |         |
|                      | >7            | 17.7       | 44.4       |         |
| Positive SM          | %             | 14.5       | 66.7       | <0.001  |
| LAD template         | Extended      | 87.6       | 33.3       | <0.001  |
|                      | Superextended | 12.4       | 66.7       |         |
| Nodes removed        | n             | 17.4 ±10.1 | 26.6 ±10.5 | <0.001  |

**Table 3. multivariate analysis**

|              | OR   | p value | CI (95%)    |
|--------------|------|---------|-------------|
| LAD template | 0.13 | 0.01    | 0.026-0.611 |

#### CONCLUSIONS

In our retrospective analysis, nodal metastasis occurred in 4.6% of the patients. A superextended lymphadenectomy is the only factor associated to nodal metastasis.