|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Univariate Analysis | | | Multivariable Analysis | | |
| Predictors | ODDS RATIO | 95% CI | P VALUE | ODDS RATIO | 95% CI | P VALUE |
| Tumor location (med./cent. vs. lat.) | 1.84 | 1.03 – 3.41 | 0.04 | 1.69 | 0.94 – 3.17 | 0.08 |
| Tumor Size (T3/4 vs. T1/2) | 2.82 | 1.51 – 5.13 | 0.0007 | 2.70 | 1.43 – 4.96 | 0.001 |
| Grading (G2/3 vs. G1) | 2.03 | 0.71 – 8.57 | 0.24 | 1.78 | 0.60 – 7.64 | 0.35 |
| HR Status (HR- vs. HR+) | 1.04 | 0.57 – 1.82 | 0.88 | 0.98 | 0.53 – 1.76 | 0.95 |
| Footnote: Estimates represent odds ratio using logistic regression with corresponding 95% confidence intervals. Statistical significance was determined at the 0.05 level.  Abbreviations: MED: medial; cent: central; lat: lateral; HR: Hormone receptor; 95% CI: 95% confidence interval. | | | | | | |

Supplementary Table 1. Association between risk factors and ipsilateral IMN involvement using logistic regression.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Univariate Analysis | | | Multivariable Analysis | | |
| Predictors | ODDS RATIO | 95% CI | P VALUE | ODDS RATIO | 95% CI | P VALUE |
| Tumor location (med./cent. vs. lat.) | 1.88 | 1.08 – 3.37 | 0.027 | 1.65 | 0.93 – 3.01 | 0.08 |
| Tumor Size (T3/4 vs. T1/2) | 3.48 | 1.95 – 6.12 | 1.69E-05 | 3.29 | 1.83 – 5.85 | 0.00005 |
| Grading (G2/3 vs. G1) | 2.32 | 0.81 – 9.77 | 0.16 | 1.78 | 0.60 – 7.69 | 0.35 |
| HR Status (HR- vs. HR+) | 1.21 | 0.70 – 2.04 | 0.48 | 1.15 | 0.65 – 2.02 | 0.61 |
| Footnote: Estimates represent odds ratio using logistic regression with corresponding 95% confidence intervals. Statistical significance was determined at the 0.05 level.  Abbreviations: MED: medial; cent: central; lat: lateral; HR: Hormone receptor; 95% CI: 95% confidence interval. | | | | | | |

Supplementary Table 2. Association between risk factors and contralateral IMN involvement using logistic regression.



Supplementary Figure 1. ROC analysis for ipsilateral IMN involvement (a) and contralateral IMPV involvement (b) including “IMPV contact only”, a “multivariable model without IMPV contact” and a “multivariable model with IMPV contact”.