**Supplement Table 3. Preoperative hydronephrosis according to tumor features.**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Study** | **Gender** | | **Tumor location** | | **Bladder recurrence** | |
| **Male** | **Female** | **Renal pelvis** | **Ureter** | **Positive** | **Negative** |
| Cho\_2007 | NA | NA | NA | NA | NA | NA |
| Chapman\_2009 | NA | NA | NA | NA | NA | NA |
| Ng\_2011 | 25/67 | 14/39 | 19/69 | 37 | NA | NA |
| Messer\_2013 | 43/78 | 93/143 | 53/93 | 45/70 | NA | NA |
| Bozzini\_2013 | 48/249 | 26/152 | 25/264 | 44/110 | NA | NA |
| Zhang\_2013 | NA | NA | 57/146 | 53/71 | NA | NA |
| Hwang\_2013 | NA | NA | 11/61 | 26/53 | NA | NA |
| Luo\_2013 | NA | NA | NA | NA | NA | NA |
| Sakano\_2013 | NA | NA | NA | NA | NA | NA |
| Chen\_2013 | 177/315 | 215/408 | 106/341 | 285/381 | NA | NA |
| Zou\_2014 | NA | NA | NA | NA | NA | NA |
| Colin\_2014 | NA | NA | NA | NA | NA | NA |
| Fradet\_2014 | NA | NA | NA | NA | 84/301 | 77/323 |
| Chung\_2014 | 177/315 | 215/408 | 31/65 | 24/48 | 22/40 | 33/73 |
| Yeh\_2015 | 126/204 | 166/268 | 89/189 | 145/193 | NA | NA |
| Zhang\_2015 | 119/229 | 152/291 | 69/264 | 202/256 | NA | NA |
| Liang\_2016 | NA | NA | 35/80 | 54/67 | NA | NA |
| Xing\_2016 | NA | NA | NA | NA | NA | NA |
| Zhang\_2016 | NA | NA | NA | NA | NA | NA |

**Notes.**

Abbreviations: NA = not available.