Supplementary Table 3: Baseline comparison between included (n=704) and excluded group (n=1076)

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| --- | --- | --- | --- |
|  | **Included (n=704)** | **Excluded (1076)** | **p-Value** |
|  | *median (IQR)* | *median (IQR)* |  |
| **Age** | 63 (54-70) | 62 (54-71) | 0.455 |
| **BMIa** | 27 (23-30) | 26 (23-30) | 0.603 |
| **Duration of primary diagnosis  until metastatic operation (years)a** | 865 (176-2486) | 329 (21-1363) | **<0.001** |
|  | *n (%)* | *n (%)* |  |
| **Men** | 331 (47) | 550 (51) | **0.010** |
| **BMI (in kg/m2)a** |  |  | 0.288 |
| < 18.5 | 14 (2.5) | 34 (3.8) |  |
| 18.5 - 30 | 414 (74) | 634 (71) |  |
| > 30 | 133 (24) | 227 (25) |  |
| **Location** |  |  | **<0.001** |
| Extremities | 488 (69) | 603 (56) |  |
| Spine | 216 (31) | 473 (44) |  |
| **Primary Tumor Growthb** |  |  | **<0.001** |
| Slow | 290 (41) | 370 (34) |  |
| Moderate | 230 (33) | 273 (25) |  |
| Rapid | 184 (26) | 433 (40) |  |
| **Visceral metastases** |  |  | **0.006** |
| None | 361 (51) | 641 (60) |  |
| Liver or lung | 229 (33) | 293 (27) |  |
| Brain and liver or lung | 94 (13) | 111 (10) |  |
| Brain | 20 (2.8) | 21 (2.9) |  |
| **Fracture type** |  |  | **<0.001** |
| Impending | 337 (48) | 425 (40) |  |
| Pathologic | 367 (52) | 651 (61) |  |
| **Previous local radiotherapy** | 166 (24) | 259 (24) | 0.812 |
| **Previous systemic therapy** | 480 (68) | 590 (55) | **<0.001** |
| *IQR, interquartile range; BMI, body mass index. P-values are calculated with the t-test for continuous and the Chi squared test for categorical baseline characteristics; bold values indicate p-Value of <0.05 a BMI was available in 561 patients (80%) and 895 patients (83%) and duration of primary diagnosis until metastatic operation in 682 patients (97%) and 1007 patients (94%), respectively in included and excluded group.  b Based on histology groupings; slow growth includes hormone dependent breast cancer, hormone dependent prostate cancer malignant lymphoma malignant myeloma, and thyroid cancer; moderate growth includes non-small cell lung cancer with molecularly targeted therapy, hormone independent breast cancer, hormone independent prostate cancer, renal cell carcinoma, sarcoma, other gynecological cancer, and others; and rapid growth includes other lung cancer, colon and rectal cancer, gastric cancer, hepatocellular carcinoma, pancreatic cancer, head and neck cancer, other urological cancer, esophageal cancer, malignant melanoma, gallbladder cancer, cervical cancer, and unknown origin* | | | |