

Supplementary Table S3. Descriptive characteristics of 418 patients diagnosed with small renal masses between 2008 and 2021 and treated with ablation. Stratification is made according to SuNS score complexity class (low vs moderate vs high). Data are shown as medians for continuous variables or as counts and percentages (%) for categorical variables.

| Renal cell carcinoma treated with ablation | Overall n = 418 | Low n = 256 (61%) | Moderate n = 128 (31%) | High n = 34 (8%) | p-value |
|---|--------------------|----------------------|---------------------------|---------------------|------------------|
| Age at diagnosis (years) Median (IQR) | 67 (59-76) | 67 (59-74) | 69 (62-78) | 70 (63-80) | 0.04 |
| Sex | | | | | 0.12 |
| Male | 277 (66%) | 179 (70%) | 76 (59%) | 22 (65%) | |
| Age-adjusted Charlson Comorbidity Index Median (IQR) | 5.00 (4.00-6.00) | 5.00 (4.00-6.00) | 5.00 (4.00-6.25) | 5.50 (4.00-7.75) | 0.2 |
| Body mass index Median (IQR) | 26.0 (24.0-29.0) | 25.6 (23.6-28.0) | 26.9 (24.4-29.4) | 27.3 (25.0-28.0) | 0.01 |
| Side | | | | | 0.5 |
| Left | 180 (43%) | 104 (41%) | 60 (47%) | 16 (47%) | |
| Right | 210 (50%) | 137 (54%) | 57 (45%) | 16 (47%) | |
| Bilateral | 28 (7%) | 15 (5%) | 11 (8%) | 2 (6%) | |
| Face | | | | | 0.3 |
| Posterior | 215 (51%) | 133 (52%) | 69 (54%) | 13 (38%) | |
| Anterior | 203 (49%) | 123 (48%) | 59 (46%) | 21 (62%) | |
| Renal rim | | | | | 0.008 |
| Lateral | 255 (61%) | 171 (67%) | 68 (53%) | 16 (47%) | |
| Medial | 163 (39%) | 85 (33%) | 60 (47%) | 18 (53%) | |
| Polar location | | | | | 0.05 |
| Upper | 115 (28%) | 71 (28%) | 34 (27%) | 10 (29%) | |
| Middle | 169 (40%) | 94 (37%) | 55 (43%) | 20 (59%) | |
| Lower | 134 (32%) | 91 (36%) | 39 (30%) | 4 (12%) | |
| cT stage | | | | | <0.001 |
| T1a | 370 (89%) | 256 (100%) | 95 (74%) | 19 (56%) | |
| T1b | 48 (11%) | 0 (0%) | 33 (26%) | 15 (44%) | |
| Size (diameter) | | | | | <0.001 |
| ≤3 cm | 289 (69%) | 238 (93%) | 51 (40%) | 0 (0%) | |
| >3 ≤4 cm | 81 (19%) | 18 (7%) | 44 (34%) | 19 (56%) | |
| >4 cm | 48 (11%) | 0 (0%) | 33 (26%) | 15 (44%) | |
| Contact surface area | | | | | <0.001 |
| <10 cm ² | 218 (52%) | 194 (76%) | 24 (19%) | 0 (0%) | |
| ≥10 cm ² | 200 (48%) | 62 (24%) | 104 (81%) | 34 (100%) | |
| Nearness to renal sinus or collecting system | | | | | <0.001 |
| >4 mm | 331 (79%) | 256 (100%) | 75 (59%) | 0 (0%) | |
| ≤4 mm | 87 (21%) | 0 (0%) | 53 (41%) | 34 (100%) | |
| Nearness to ureter (mm) Median (IQR) | 53 (40-66) | 56 (43-67) | 51 (38-65) | 43 (35-58) | 0.009 |
| Nearness to bowel (mm) Median (IQR) | 49 (32-69) | 46 (30, 67) | 53 (34, 73) | 49 (35-63) | 0.3 |
| Skin-to-tumour distance | | | | | 0.2 |
| ≤10 cm | 299 (72%) | 191 (75%) | 86 (67%) | 22 (65%) | |
| >10 cm | 119 (28%) | 65 (25%) | 42 (33%) | 12 (35%) | |
| Histology | | | | | 0.06 |
| Clear cell | 240 (62%) | 135 (57%) | 80 (68%) | 25 (80%) | |
| Non-clear cell | 97 (25%) | 69 (29%) | 25 (21%) | 3 (10%) | |
| Benign | 48 (12%) | 32 (14%) | 13 (11%) | 3 (10%) | |
| Technique | | | | | 0.04 |
| Microwave | 268 (64%) | 175 (68%) | 76 (59%) | 17 (50%) | |
| Radiofrequency | 150 (36%) | 81 (32%) | 52 (41%) | 17 (50%) | |
| Ablation | | | | | <0.001 |
| Complete | 376 (90%) | 249 (97%) | 111 (87%) | 16 (47%) | |
| Partial | 42 (10%) | 7 (3%) | 17 (13%) | 18 (53%) | |
| Clavien-Dindo class | | | | | 0.002 |
| <3 | 394 (94%) | 249 (97%) | 116 (91%) | 29 (85%) | |
| ≥3 | 24 (6%) | 7 (3%) | 12 (9%) | 5 (15%) | |
| Glomerular filtration rate decrease | | | | | 0.2 |
| <30% | 385 (92%) | 240 (94%) | 115 (90%) | 30 (88%) | |
| ≥30% | 33 (8%) | 16 (6%) | 13 (10%) | 4 (12%) | |
| Reason for trifecta not achieved | | | | | <0.001 |
| Trifecta achieved | 329 (79%) | 227 (89%) | 90 (70%) | 12 (35%) | |
| Partial ablation | 34 (8%) | 6 (2%) | 15 (12%) | 13 (38%) | |
| Glomerular filtration rate decrease ≥30% | 28 (7%) | 6 (2%) | 9 (7%) | 2 (6%) | |
| Clavien-Dindo class ≥3 | 17 (4%) | 16 (6%) | 10 (8%) | 2 (6%) | |
| Two or more factors | 10 (2%) | 1 (1%) | 4 (3%) | 5 (15%) | |

Bold values indicate statistical significance p<0.05.

SuNS: Su(rface), N(earness to renal sinus or collecting system), S(ize); IQR: interquartile range.