

Table S1 Correlations between SDI and BMI and increasing median BMI (IQR) with SDI (quartile)

Race and ethnicity	N	Spearman's correlation		SDI (quartile)				P [†]	Mann-Whitney U test P value		
		Spearman's rho	P	Q1 (≤35)	Q2 (>35, ≤70)	Q3 (>70, ≤88)	Q4 (>80)		P _{Q1 vs. Q2}	P _{Q1 vs. Q3}	P _{Q1 vs. Q4}
All	432	0.132	0.006*	29.4 (26.0–32.8)	30.3 (25.7–34.2)	30.5 (26.6–36.9)	31.4 (27.0–37.2)	0.054	0.38	0.03*	0.02*
NHW	215	0.047	0.49	29.2 (25.8–32.8)	28.7 (26.6–34.1)	29.1 (25.1–34.7)	31.4 (23.7–37.8)	0.73	0.51	0.96	0.32
Hispanic	151	0.124	0.15	29.8 (26.5–34.0)	31.5 (24.8–34.0)	32.8 (27.4–36.9)	30.5 (27.3–35.6)	0.27	0.65	0.18	0.32
AI	30	-0.01	0.61	-	-	37.9 (27.1–42.3)	32.4 (29.8–40.0)	0.62	NA	NA	NA
Other	36	-0.15	0.93	29.3 (24.1–34.1)	35.1 (25.8–40.3)	29.3 (28.0–37.8)	25.9 (23.9–31.6)	0.33	0.27	0.38	0.51

[†], P value from Kruskal-Wallis test; *, P<0.05. SDI, social deprivation index; BMI, body mass index; IQR, interquartile range; NHW, non-Hispanic White; AI, American Indian; NA, not available.

Table S2 Correlation of having hypertension and diabetes with BMI and SDI (quartile)

Categories	None	Hypertension or diabetes	Both hypertension and diabetes	P
BMI (kg/m ²)	n=141	n=173	n=132	<0.001
<25	40 (28.4)	31 (17.9)	14 (10.6)	
≥25, <30	48 (34.0)	55 (31.8)	29 (22.0)	
≥30, <35	26 (18.4)	47 (27.2)	40 (30.3)	
≥35	27 (19.1)	40 (23.1)	49 (37.1)	
SDI	n=138	n=166	n=128	0.007
Q1	31 (22.5)	52 (31.3)	25 (19.5)	
Q2	40 (29.0)	48 (28.9)	24 (18.8)	
Q3	38 (27.5)	33 (19.9)	35 (27.3)	
Q4	29 (21.0)	33 (19.9)	44 (34.4)	

Data are presented as n (%). BMI, body mass index; SDI, social deprivation index.

Table S3 BMI is associated with a longer ischemia time and a larger EBL (>150 vs. ≤150 mL) stratified by SDI and race and ethnicity

BMI (kg/m ²)	Longer ischemia time		Larger EBL	
	OR (95% CI)	P	OR (95% CI)	P
Low SDI				
<25	Reference		Reference	
≥25, <30	4.01 (1.06–15.12)	0.04*	0.88 (0.32–2.42)	0.81
≥30, <35	2.24 (0.61–8.23)	0.23	1.99 (0.69–5.72)	0.20
≥35	5.82 (1.35–25.12)	0.02*	1.37 (0.43–4.34)	0.60
High SDI				
<25	Reference		Reference	
≥25, <30	1.34 (0.25–7.24)	0.74	1.05 (0.29–3.73)	0.95
≥30, <35	1.44 (0.27–7.57)	0.67	1.99 (0.54–7.30)	0.30
≥35	4.12 (0.72–23.52)	0.11	3.32 (0.93–11.87)	0.07*
NHW				
<25	Reference		Reference	
≥25, <30	2.41 (0.61–9.44)	0.21	0.94 (0.34–2.61)	0.90
≥30, <35	2.25 (0.55–9.28)	0.26	2.10 (0.70–6.30)	0.19
≥35	11.74 (2.34–59.01)	0.003*	3.10 (1.01–9.54)	0.048*
Hispanic				
<25	Reference		Reference	
≥25, <30	4.08 (0.48–34.61)	0.20	1.14 (0.28–4.64)	0.85
≥30, <35	4.64 (0.58–37.23)	0.15	2.64 (0.66–10.48)	0.17
≥35	16.72 (1.48–189.23)	0.02*	2.03 (0.48–8.65)	0.34

*, P<0.05. Model includes BMI, comorbidity, age, sex, race and ethnicity, SDI, stage, grade, nephrectomy type, and surgical approach. BMI, body mass index; EBL, estimated blood loss; SDI, social deprivation index; OR, odds ratio; CI, confidence interval; NHW, non-Hispanic White.

Table S4 Logistic regression analysis assessing impact of obesity and comorbidities on EBL, and length of hospital stay stratified based on SDI and race and ethnicity in patients underwent partial nephrectomy

BMI (kg/m ²)	Larger EBL [†]		Longer hospital stay [‡]	
	OR (95% CI)	P	OR (95% CI)	P
Low SDI				
<30	Reference		Reference	
≥30	2.28 (0.89–5.86)	0.09*	0.53 (0.09–3.00)	0.47
Continuous	1.01 (0.94–1.08)	0.88	1.05 (0.91–1.21)	0.49
High SDI				
<30	Reference		Reference	
≥30	3.75 (1.33–10.60)	0.01*	3.15 (0.37–27.02)	0.30
Continuous	1.07 (0.99–1.14)	0.053	0.97 (0.88–1.08)	0.63
NHW				
<30	Reference		Reference	
≥30	3.10 (1.18–8.20)	0.02*	0.36 (0.05–2.81)	0.33
Continuous	1.05 (0.98–1.12)	0.18	1.01 (0.89–1.14)	0.87
Hispanic				
<30	Reference		Reference	
≥30	3.57 (1.004–12.68)	0.049*	2.28 (0.34–15.41)	0.40
Continuous	1.03 (0.95–1.11)	0.44	0.98 (0.88–1.09)	0.64

[†], model includes BMI, comorbidity, age, sex, race and ethnicity, SDI, stage, grade, nephrectomy type, and surgical approach; [‡], model includes BMI, comorbidity, age, sex, race and ethnicity, SDI, stage, insurance, nephrectomy type, and surgical approach; *, P<0.05. EBL, estimated blood loss; SDI, social deprivation index; BMI, body mass index; OR, odds ratio; CI, confidence interval; NHW, non-Hispanic White.

Table S5 Association between BMI and EBL using different cutoff for EBL

BMI/obesity by different EBL cutoffs	EBL1	EBL2	OR (95% CI)	P
EBL >150 vs. ≤150 mL	>150 mL	≤150 mL		
Obesity	n=199	n=155		
Non-obese	99 (49.7)	64 (41.3)	Reference	
Obese	100 (50.3)	91 (58.7)	2.07 (1.24–3.48)	0.006*
Continuous	31.4 (8.0)	32.0 (7.3)	1.03 (0.99–1.06)	0.11
EBL ≥500 vs. <500 mL	≥500 mL	<500 mL		
BMI (kg/m ²)	n=296	n=58		
<25	55 (18.6)	10 (17.2)	Reference	
≥25, <30	83 (28.0)	15 (25.9)	0.70 (0.27–1.86)	0.48
≥30, <35	80 (27.0)	14 (24.1)	1.02 (0.38–2.75)	0.97
≥35	78 (26.4)	19 (32.8)	1.84 (0.68–5.02)	0.23
Obesity	n=296	n=58		
Non-obese	138 (46.6)	25 (43.1)	Reference	
Obese	158 (53.4)	33 (56.9)	1.66 (0.84–3.27)	0.15
Continuous	31.6 (7.6)	32.3 (8.3)	1.03 (0.99–1.07)	0.16
EBL ≥700 vs. <700 mL	≥700 mL	<700 mL		
BMI (kg/m ²)	n=323	n=31		
<25	62 (19.2)	3 (9.7)	Reference	
≥25, <30	86 (26.6)	12 (38.7)	1.91 (0.46–7.99)	0.37
≥30, <35	86 (26.6)	8 (25.8)	2.21 (0.48–10.21)	0.31
≥35	89 (27.6)	8 (25.8)	2.26 (0.46–11.03)	0.31
Obesity	n=323	n=31		
Non-obese	148 (45.8)	15 (48.4)	Reference	
Obese	175 (54.2)	16 (51.6)	1.41 (0.56–3.54)	0.47
Continuous	31.7 (7.8)	31.5 (7.0)	1.02 (0.96–1.08)	0.59
EBL ≥1,000 vs. <1,000 mL	≥1,000 mL	<1,000 mL		
BMI (kg/m ²)	n=340	n=14		
<25	63 (18.5)	2 (14.3)	Reference	
≥25, <30	92 (27.1)	6 (42.9)	1.31 (0.19–9.98)	0.78
≥30, <35	92 (27.1)	2 (14.3)	1.20 (0.10–14.88)	0.89
≥35	93 (27.4)	4 (28.6)	1.78 (0.20–16.19)	0.61
Obesity	n=329	n=14		
Non-obese	150 (45.6)	8 (57.1)	Reference	
Obese	179 (54.4)	6 (42.9)	1.27 (0.28–5.70)	0.75
Continuous	31.7 (7.7)	31.2 (8.5)	1.02 (0.94–1.11)	0.60

Data are presented as n (%) or mean (SD). *, P<0.05. BMI, body mass index; EBL, estimated blood loss; OR, odds ratio; CI, confidence interval; SD, standard deviation.

Table S6 Ischemia time and EBL by length of hospital stay

Outcomes	Length of hospital stay (days)			Ischemia time (min)		
	≤3 (n=231)	>3 (n=122)	P	≤18.5 (n=98)	>18.5 (n=99)	P
Ischemia time (min)	n=152	n=53	0.007			
≤18.5	83 (54.6)	18 (34.0)				
>18.5	69 (45.4)	35 (66.0)				
EBL1 (mL)			<0.001			0.002
≤150	152 (65.8)	47 (38.5)		65 (66.3)	44 (44.4)	
>150	79 (34.2)	75 (61.5)		33 (33.7)	55 (55.6)	
EBL2 (mL)			<0.001			<0.001
≤500	210 (90.9)	85 (69.7)		94 (95.9)	79 (79.8)	
>500	21 (9.1)	37 (30.3)		4 (4.1)	20 (20.2)	
EBL3 (mL)			<0.001			0.02
≤700	223 (96.5)	99 (81.1)		97 (99.0)	90 (90.9)	
>700	8 (3.5)	23 (18.9)		1 (1.0)	9 (9.1)	
EBL4 (mL)			<0.001			0.25
≤1,000	230 (99.6)	109 (89.3)		98 (100.0)	96 (97.0)	
>1,000	1 (0.4)	13 (10.7)		0 (0.0)	3 (3.0)	

Data are presented as n (%). EBL, estimated blood loss.

Table S7 A longer ischemia time is associated with a larger EBL

EBL cutoffs	Smaller EBL	Larger EBL	OR (95% CI)	P
EBL >150 vs. ≤150 mL	n=109	n=88		
Shorter ischemia time	65 (59.6)	33 (37.5)	Reference	
Longer ischemia time	44 (40.4)	55 (62.5)	3.51 (1.70–7.26)	<0.001*
EBL ≥500 vs. <500 mL	n=173	n=24		
Shorter ischemia time	94 (54.3)	4 (16.7)	Reference	
Longer ischemia time	79 (45.7)	20 (83.3)	9.58 (2.56–35.92)	<0.001*
EBL ≥700 vs. <700 mL	n=187	n=10		
Shorter ischemia time	97 (51.9)	1 (10.0)	Reference	
Longer ischemia time	90 (48.1)	9 (90.0)	16.14 (1.41–185.09)	0.03*
EBL ≥1,000 vs. <1,000 mL	n=194	n=3		
Shorter ischemia time	98 (50.5)	0 (0.0)		
Longer ischemia time	96 (49.5)	3 (100.0)		

Data are presented as n (%). *, P<0.05. EBL, estimated blood loss; OR, odds ratio; CI, confidence interval.