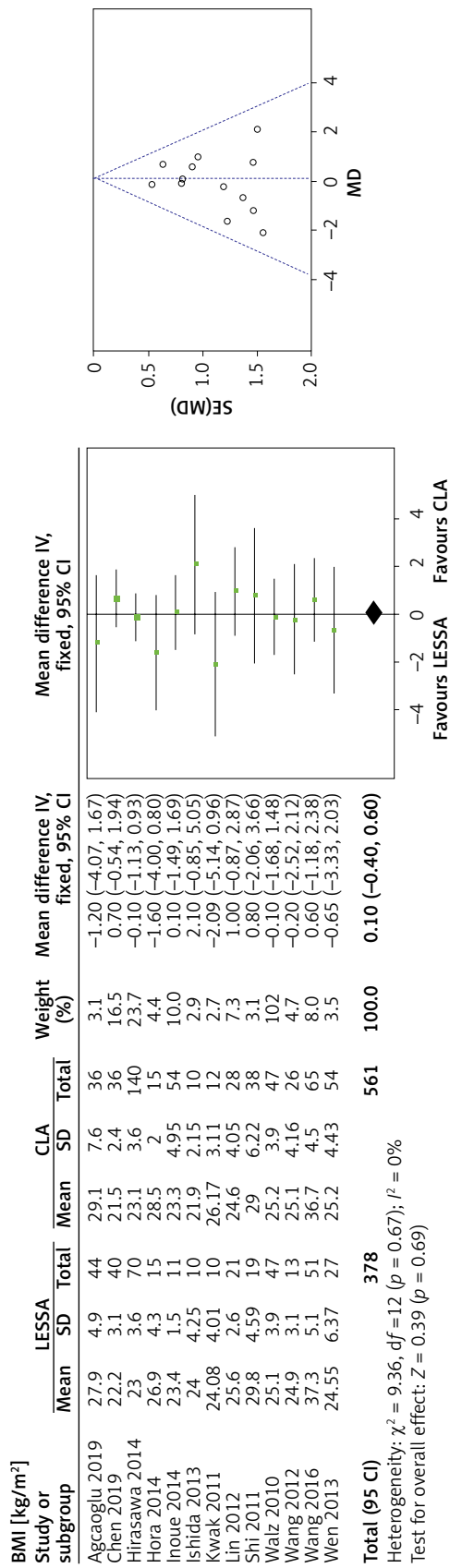


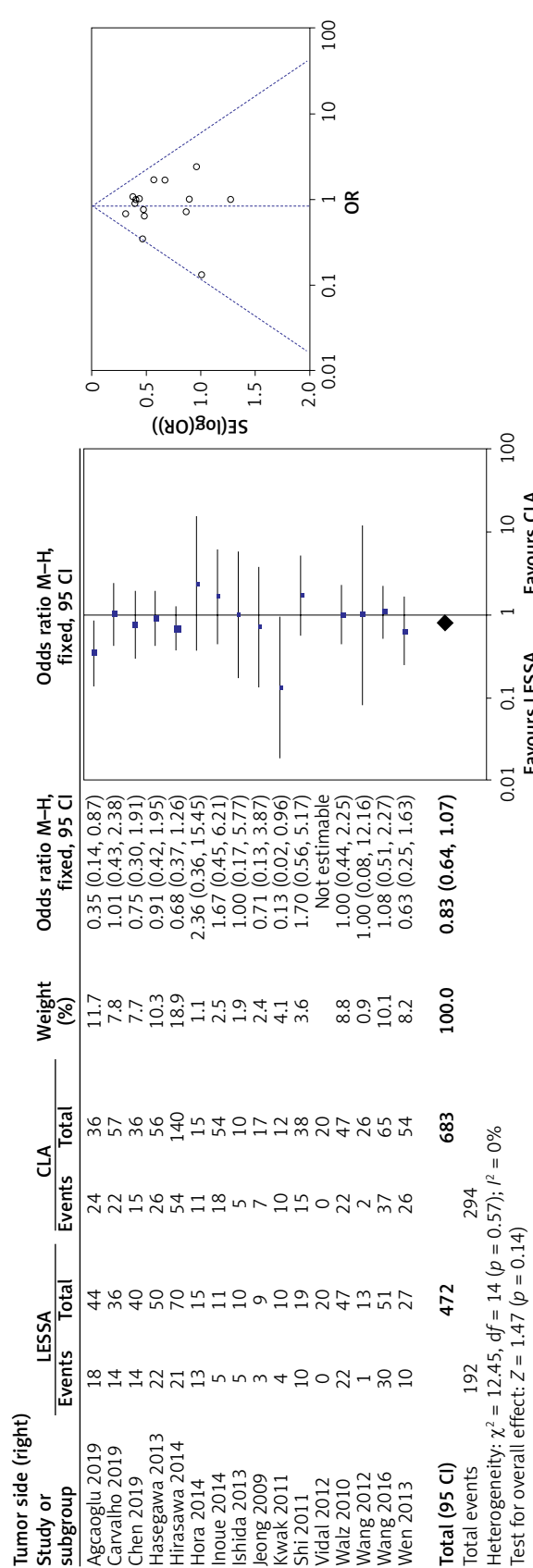
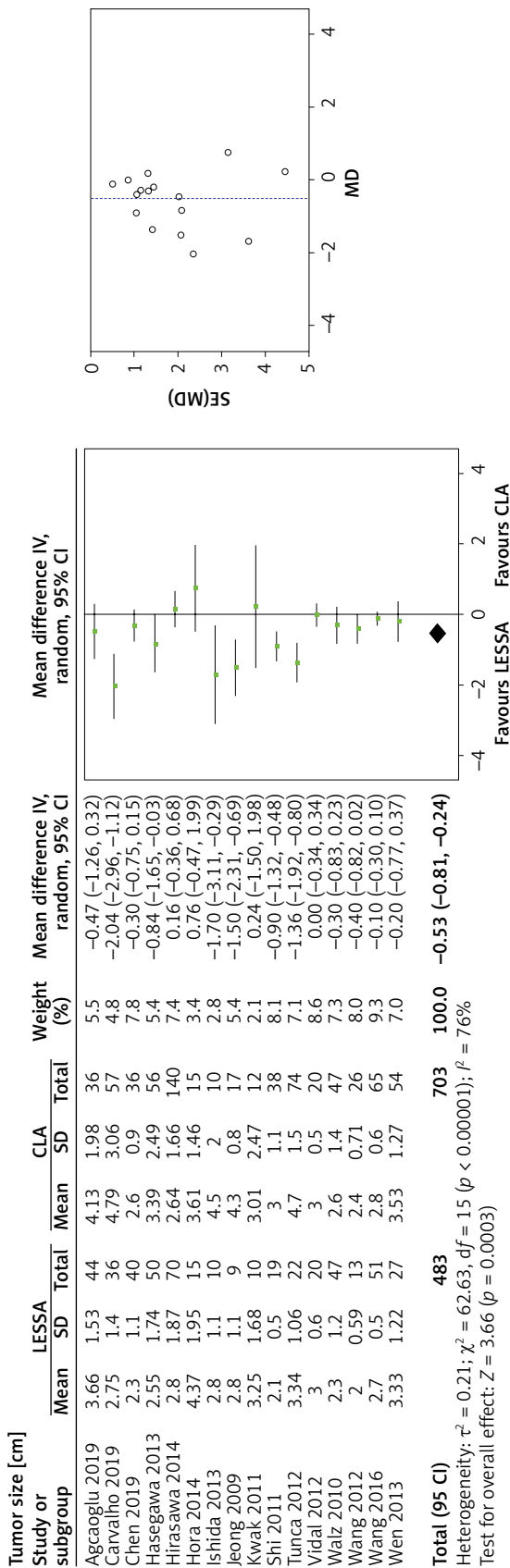
Supplementary Figure S1. Forest and funnel plots of demographic patient characteristics of laparoscopic single-site adrenalectomy (LESSA) vs. conventional laparoscopic adrenalectomy (CLA)

BMI – body mass index, SD – standard deviation, CI – confidence interval.



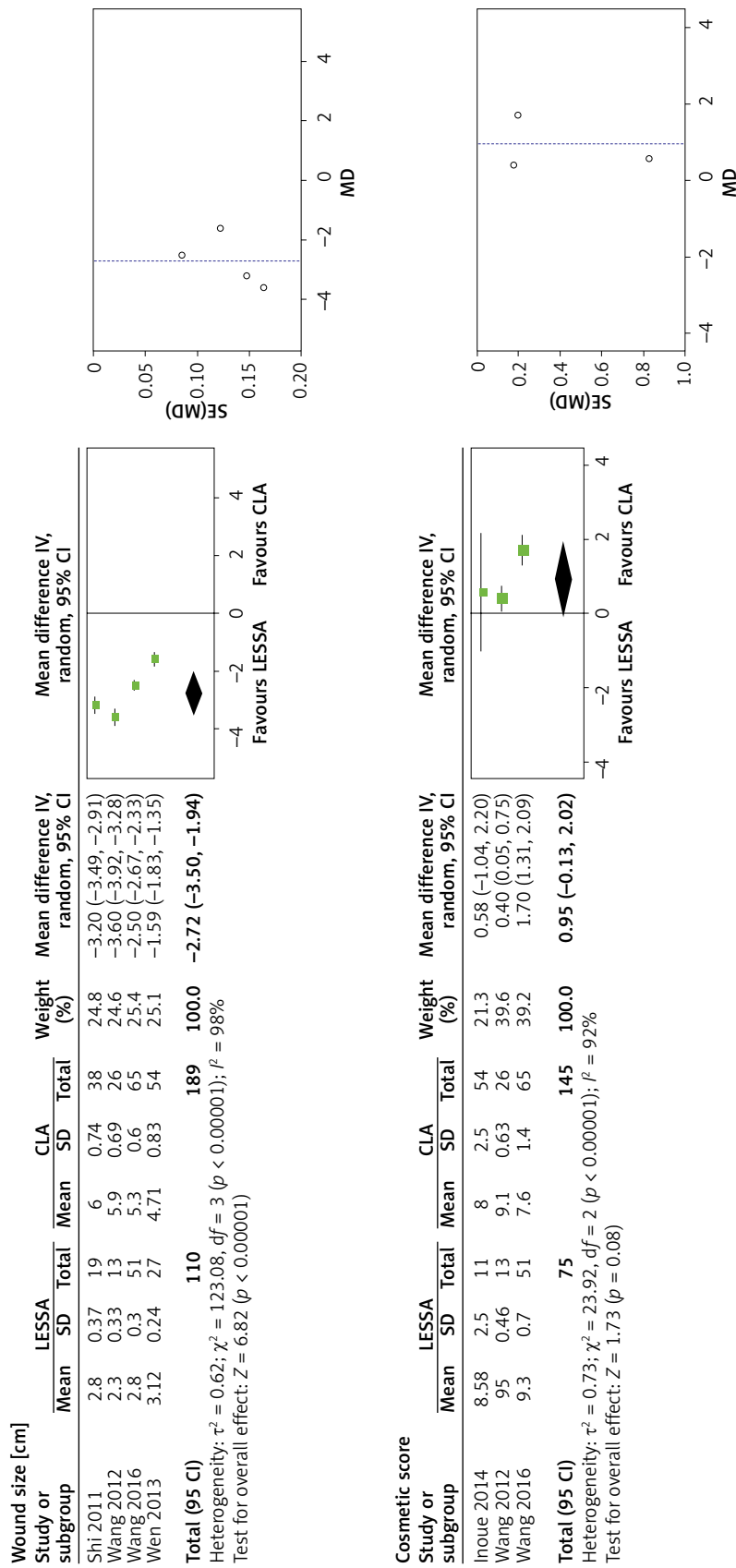
Supplementary Figure S1. Cont.

BMI – body mass index, SD – standard deviation, CI – confidence interval.



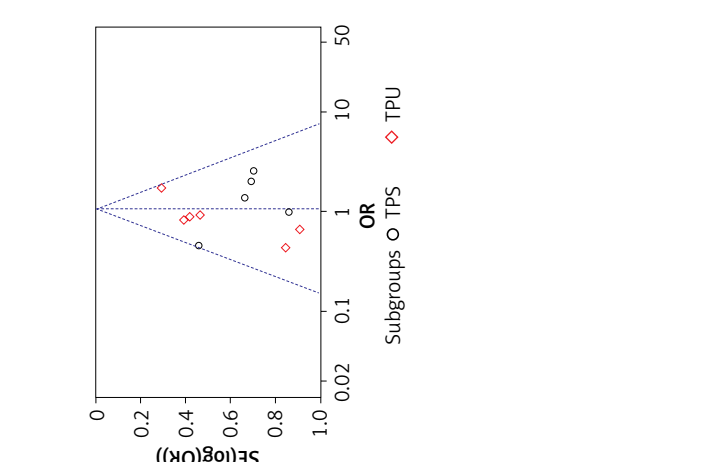
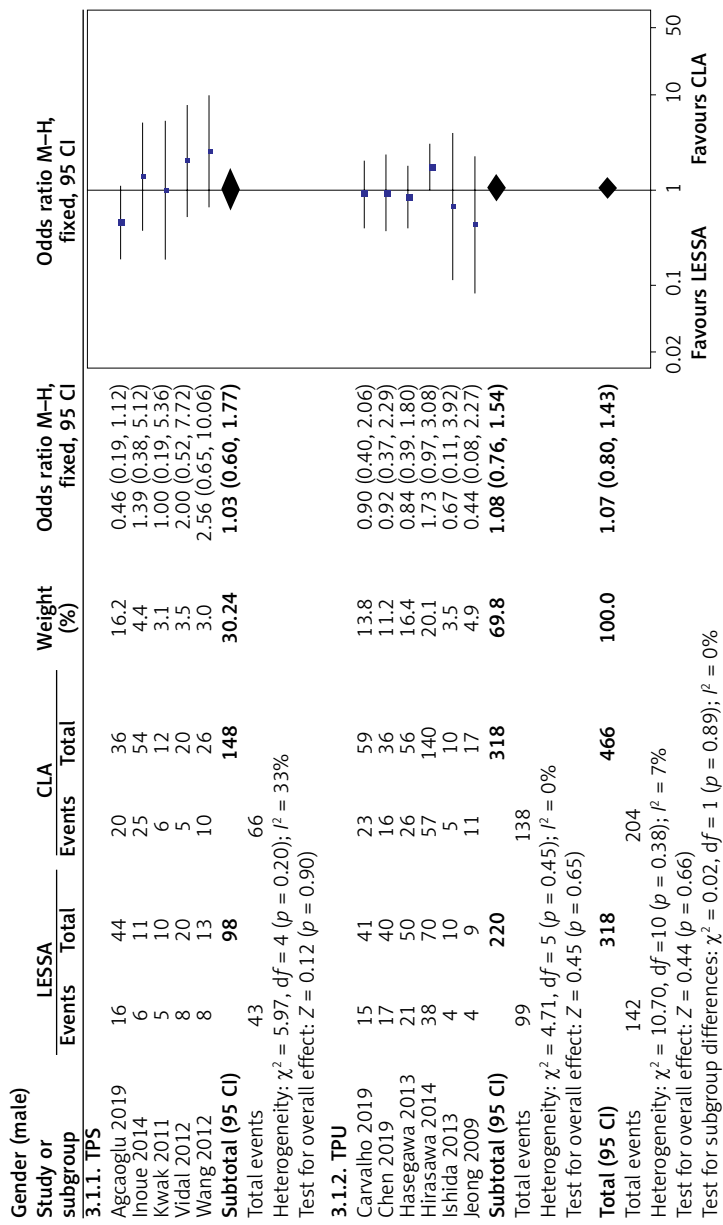
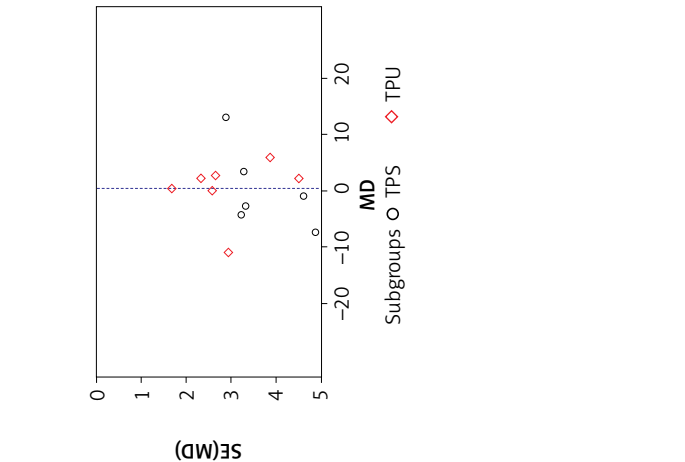
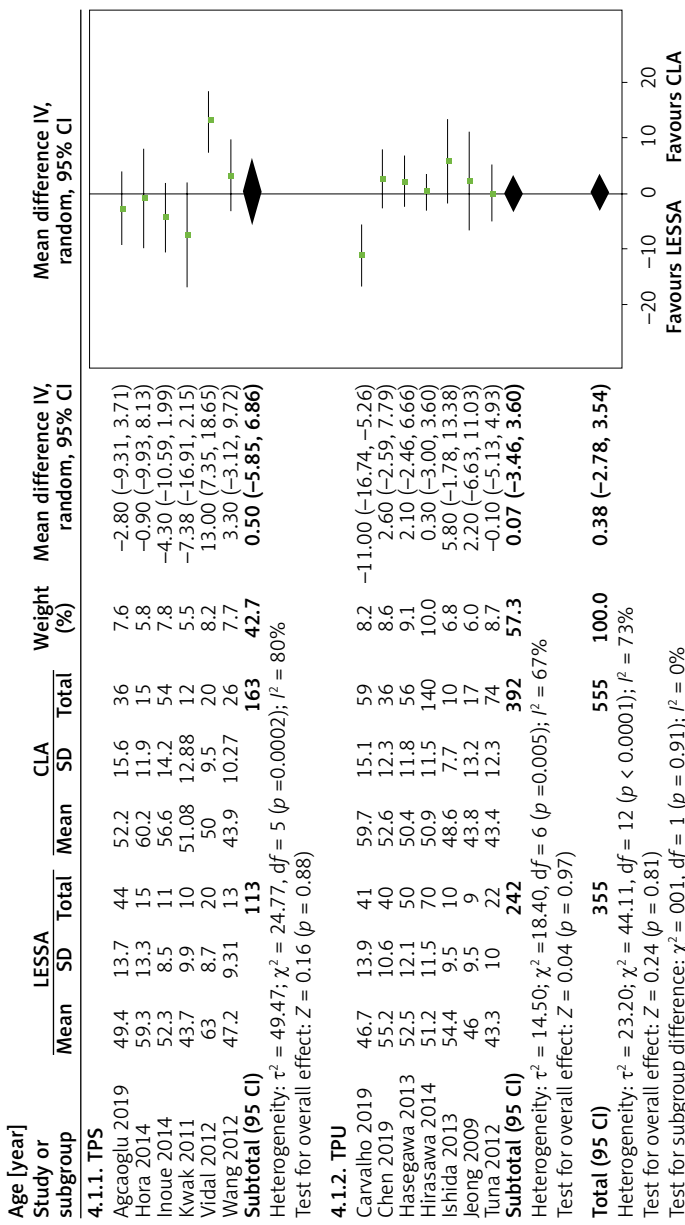
Supplementary Figure S2. Forest and funnel plots of demographic tumor characteristics of laparoscopic single-site adrenalectomy (LESSA) vs. conventional laparoscopic adrenalectomy (CLA)

SD – standard deviation, CI – confidence interval.



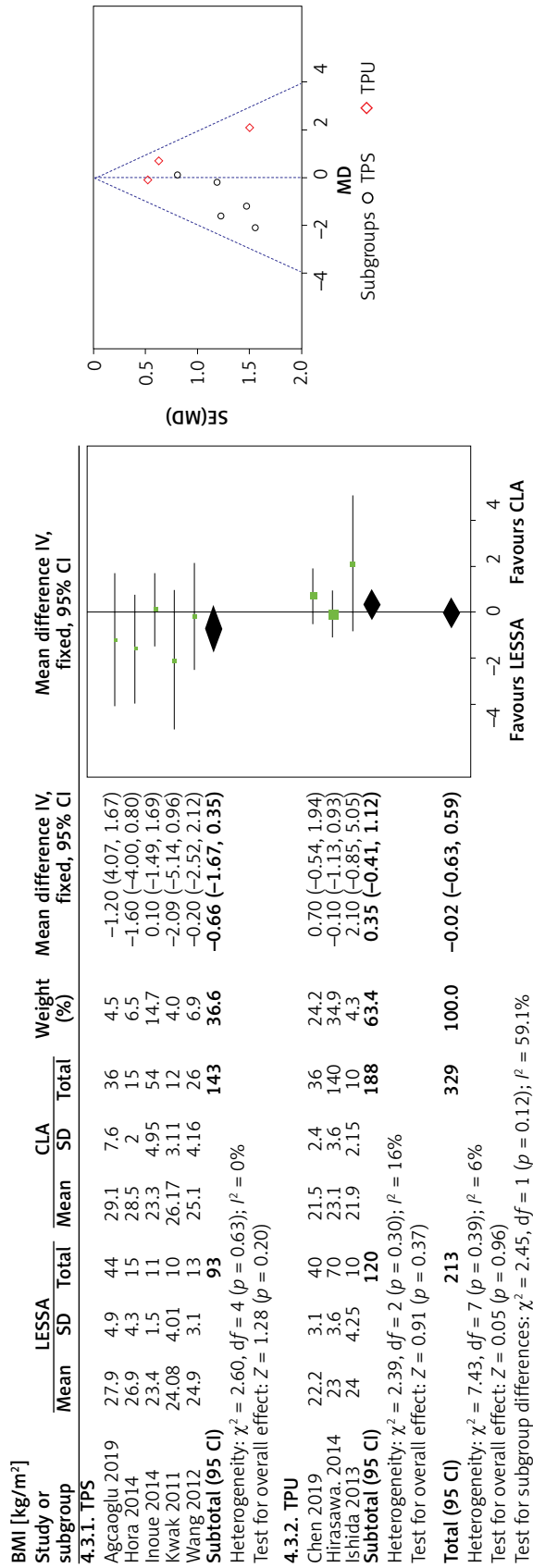
Supplementary Figure S3. Forest and funnel plots of cosmetic outcomes of laparoendoscopic single-site adrenalectomy (LESSA) vs. conventional laparoscopic adrenalectomy (CLA)

SD – standard deviation, CI – confidence interval.



Supplementary Figure S4. Forest and funnel plots of demographic patient characteristics of laparoscopic single-site adrenalectomy (LESSA) vs. conventional laparoscopic adrenalectomy (CLA) via transperitoneal approach

TPS – transperitoneal approach through subcostal incision, TPU – transperitoneal approach through umbilical incision, BMI – body mass index, SD – standard deviation, CI – confidence interval.



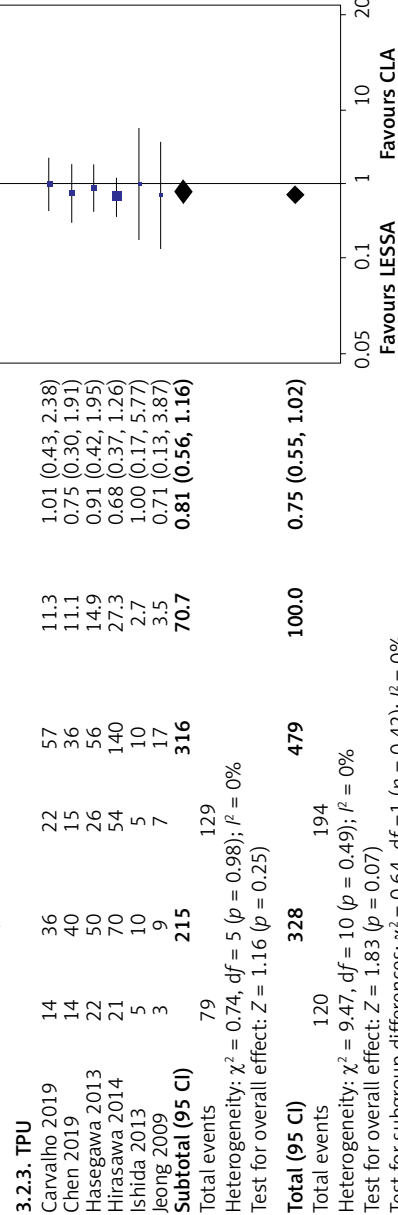
Supplementary Figure S4. Cont.

TPS – transperitoneal approach through subcostal incision, TPU – transperitoneal approach through umbilical incision, BMI – body mass index, SD – standard deviation, CI – confidence interval.

Tumor size [cm]

Study or subgroup	LESSA		CLA		Weight (%)	Mean difference IV, random, 95% CI
	Mean	SD	Mean	SD		
4.2.1. TPS						
Agcaoglu 2019	3.66	1.53	4.13	1.98	8.4	-0.47 (-1.26, 0.32)
Hora 2014	4.37	1.95	3.61	1.46	5.7	0.76 (-0.47, 1.99)
Kwak 2011	3.25	1.68	3.01	2.47	3.7	0.24 (-1.50, 1.98)
Vidal 2012	3	0.6	20	0.5	20	0.00 (-0.34, 0.34)
Wang 2012	2	0.59	13	0.71	10.9	-0.40 (-0.82, 0.02)
Subtotal (95 CI)		102			40.1	-0.15 (-0.45, 0.16)
Heterogeneity: $\tau^2 = 0.03$; $\chi^2 = 5.01$, $df = 4$ ($p = 0.29$); $I^2 = 20\%$ Test for overall effect: $Z = 0.94$ ($p = 0.35$)						
4.2.2. TPU						
Carvalho 2019	2.75	1.4	3.6	3.06	7.6	-2.04 (-2.98, -1.12)
Chen 2019	2.3	1.1	40	0.9	10.7	-0.30 (-0.75, 0.15)
Hasegawa 2013	2.55	1.74	50	3.39	8.2	-0.84 (-1.65, -0.03)
Hirasawa 2014	2.8	1.87	70	2.64	10.3	0.16 (-0.38, 0.68)
Ishida 2013	2.8	1.1	10	4.5	2	-1.70 (-3.11, -0.29)
Jeong 2009	2.8	1.1	9	4.3	8.2	-1.50 (-2.31, -0.69)
Tune 2012	3.34	1.06	22	1.5	10.0	-1.36 (-1.92, -0.80)
Subtotal (95 CI)		237			59.9	-1.00 (-1.61, -0.39)
Heterogeneity: $\tau^2 = 0.53$; $\chi^2 = 32.92$, $df = 6$ ($p < 0.0001$); $I^2 = 82\%$ Test for overall effect: $Z = 3.19$ ($p = 0.001$)						
Total (95 CI)		339			100.0	-0.61 (-1.02, -0.21)
Heterogeneity: $\tau^2 = 0.35$; $\chi^2 = 48.75$, $df = 11$ ($p < 0.00001$); $I^2 = 77\%$ Test for overall effect: $Z = 2.97$ ($p = 0.003$) Test for subgroup differences: $\chi^2 = 5.92$, $df = 1$ ($p = 0.01$); $I^2 = 83.1\%$						

Study or subgroup	LESSA		CLA		Weight (%)	Odds ratio M-H, fixed, 95 CI
	Events	Total	Events	Total		
3.2.2. TPS						
Agcaoglu 2019	18	44	24	36	16.9	0.35 (0.14, 0.87)
Hora 2014	13	15	11	15	1.6	2.36 (0.36, 15.45)
Inoue 2014	5	11	18	54	3.6	1.67 (0.45, 6.21)
Kwak 2011	4	10	10	12	5.9	0.13 (0.02, 0.96)
Vidal 2012	0	20	0	20		Not estimable
Wang 2012	1	13	2	26	1.3	1.00 (0.08, 12.16)
Subtotal (95 CI)		113		163	29.3	0.60 (0.33, 1.11)
Total events: 41						
Heterogeneity: $\chi^2 = 8.13$, $df = 4$ ($p = 0.09$); $I^2 = 51\%$ Test for overall effect: $Z = 1.62$ ($p = 0.10$)						
3.2.3. TPU						
Carvalho 2019	14	36	22	57	11.3	1.01 (0.43, 2.38)
Chen 2019	14	40	15	36	11.1	0.75 (0.30, 1.91)
Hasegawa 2013	22	50	26	56	14.9	0.91 (0.42, 1.95)
Hirasawa 2014	21	70	54	140	27.3	0.68 (0.37, 1.26)
Ishida 2013	5	10	5	10	2.7	1.00 (0.17, 5.77)
Jeong 2009	3	9	7	17	3.5	0.71 (0.13, 3.87)
Subtotal (95 CI)		215		316	70.7	0.81 (0.56, 1.16)
Total events: 79						
Heterogeneity: $\chi^2 = 0.74$, $df = 5$ ($p = 0.98$); $I^2 = 0\%$ Test for overall effect: $Z = 1.16$ ($p = 0.25$)						
Total (95 CI)		328		479	100.0	0.75 (0.55, 1.02)
Total events: 120						
Heterogeneity: $\chi^2 = 9.47$, $df = 10$ ($p = 0.49$); $I^2 = 0\%$ Test for overall effect: $Z = 1.83$ ($p = 0.07$) Test for subgroup differences: $\chi^2 = 0.64$, $df = 1$ ($p = 0.42$); $I^2 = 0\%$						



Supplementary Figure S5. Forest and funnel plots of demographic tumor characteristics of laparoscopic single-site adrenalectomy (LESSA) vs. conventional laparoscopic adrenalectomy (CLA) via transperitoneal approach

TPS – transperitoneal approach through subcostal incision, TPU – transperitoneal approach through umbilical incision, SD – standard deviation, CI – confidence interval.