Supplementary

Tables S1 Retrospective studies evaluated using ROBINS-I

		Kazaryan <i>et al.</i> , 2011 (43)	Dancea et al., 2012 (44)	Economopoulos et al., 2016 (45)	Pęzdziwiatr et al., 2017 (46)	Inaishi <i>et al.</i> , 2018 (47)	Ortenzi <i>et al.</i> , 2019 (48)	Altın <i>et al.</i> , 2021 (49)	Rodríguez-Hermosa et al., 2021 (50)
Pre-intervention	Confounding	Moderate	Moderate	Moderate	Moderate	Moderate	Moderate	Moderate	Moderate
	Selection bias	No information	No information	No information	No information	No information	Low	No information	No information
Intraintervention	Classification of interventions	Low	Low	Low	Low	Low	Low	Low	Low
Post-intervention	Intended interventions	Low	Low	Low	Low	Low	Low	Low	Low
	Missing data	Low	Low	Low	Low	Low	Low	Low	Low
	Measurement of outcomes	Low	Low	Low	Low	Low	Low	Low	Low
	Reported results	Low	Low	Low	Low	Low	Low	Low	Low
Overall bias		Moderate	Moderate	Moderate	Moderate	Moderate	Moderate	Moderate	Moderate

Subgroup analysis with ≥30 kg/m² obesity criteria studies.

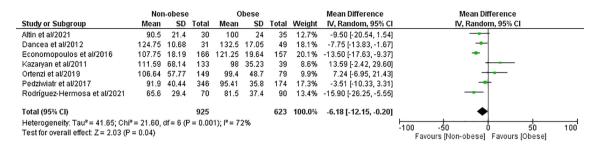


Figure S1 Forest plot comparing operative time between the NOb and Ob groups (obesity ≥30 kg/m² subgroups) (43-46,48-50). SD, standard deviation; IV, inverse variance; CI, confidence interval; df, data frame.

	Non-ob	ese	Obes	se		Odds Ratio	Odds Ratio	
Study or Subgroup	Events	Total	Events	Total	Weight	M-H, Random, 95% CI	M-H, Random, 95% CI	
Altin et al/2021	4	30	5	35	60.1%	0.92 [0.22, 3.80]		
Dancea et al/2012	0	31	4	49	13.8%	0.16 [0.01, 3.09]	•	
Kazaryan et al/2011	6	133	1	39	26.1%	1.80 [0.21, 15.38]	-	
Total (95% CI)		194		123	100.0%	0.86 [0.29, 2.59]		
Total events	10		10					
Heterogeneity: Tau2=	0.00; Chi	²= 1.74	df = 2 (F)	P = 0.42	2); 12 = 0%)	0.005	200
Test for overall effect:	Z = 0.26 (P = 0.7	9)				0.005 0.1 1 10 Favours [Non-obese] Favours [Obese]	200

Figure S2 Forest plot comparing reported intraoperative complications rate between the NOb and Ob groups (obesity ≥30 kg/m² subgroups) (43,44,49). CI, confidence interval; M-H, Mantel-Haenszel; df, data frame.

	No	on-obese			Obese			Mean Difference	Mean Difference
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Random, 95% CI	IV, Random, 95% CI
Dancea et al/2012	50	14.43	31	56.25	21.66	49	29.0%	-6.25 [-14.16, 1.66]	-
Ortenzi et al/2019	49.35	56.58	149	98.7	27.8	79	28.4%	-49.35 [-60.31, -38.39]	+
Pedziwiatr et al/2017	72.85	127.23	346	70.2	112.9	174	25.4%	2.65 [-18.82, 24.12]	
Rodríguez-Hermosa et al/2021	61.3	132	70	77.8	153.6	90	17.3%	-16.50 [-60.81, 27.81]	
Total (95% CI)			596			392	100.0%	-18.00 [-46.46, 10.46]	•
Heterogeneity: Tau ² = 711.39; Ch	$ni^2 = 43.3$	5, df = 3	(P < 0.0	00001);	$l^2 = 93\%$	5			-200 -100 0 100 200
Test for overall effect: $Z = 1.24$ (P	= 0.22)								Favours (Non-obese) Favours (Obese)

Figure S3 Forest plot comparing estimated blood loss between the NOb and Ob groups (obesity ≥30 kg/m² subgroups) (44,46,48,50). SD, standard deviation; IV, inverse variance; CI, confidence interval; df, data frame.

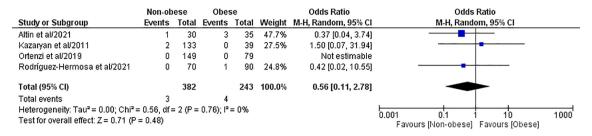


Figure S4 Forest plot comparing reported transfusion rate between the NOb and Ob groups (obesity ≥30 kg/m² subgroups) (43,48-50). CI, confidence interval; M-H, Mantel-Haenszel; df, data frame.

	Non-ob	ese	Obes	se		Odds Ratio	Odds Ratio
Study or Subgroup	Events	Total	Events	Total	Weight	M-H, Random, 95% CI	M-H, Random, 95% CI
Altin et al/2021	1	30	4	35	13.2%	0.27 [0.03, 2.53]	
Dancea et al/2012	0	31	1	49	6.4%	0.51 [0.02, 13.00]	
Economopoulos et al/2016	3	166	3	157	25.6%	0.94 [0.19, 4.75]	+-
Kazaryan et al/2011	0	133	0	39		Not estimable	
Ortenzi et al/2019	4	149	2	79	22.6%	1.06 [0.19, 5.93]	
Pedziwiatr et al/2017	5	346	2	174	24.5%	1.26 [0.24, 6.57]	
Rodríguez-Hermosa et al/2021	0	70	4	90	7.7%	0.14 [0.01, 2.58]	•
Total (95% CI)		925		623	100.0%	0.73 [0.32, 1.65]	
Total events	13		16				
Heterogeneity: Tauz = 0.00; Chiz:	= 2.84, df	= 5 (P =	0.72); 12	= 0%			0.005
Test for overall effect: Z = 0.76 (P	= 0.45)						0.005 0.1 1 10 200 Favours [Non-obese] Favours [Obese]

Figure S5 Forest plot comparing reported conversion to open surgery rate between the NOb and Ob groups (obesity ≥30 kg/m² subgroups) (43-46,48-50). CI, confidence interval; M-H, Mantel-Haenszel; df, data frame.

	Non-obese		Obese		Odds Ratio		Odds Ratio	
Study or Subgroup	Events	Total	Events	Total	Weight	M-H, Random, 95% CI	M-H, Random, 95% CI	
Altin et al/2021	1	30	8	35	5.8%	0.12 [0.01, 0.99]		
Dancea et al/2012	6	31	18	49	17.8%	0.41 [0.14, 1.20]		
Economopoulos et al/2016	8	166	11	157	20.8%	0.67 [0.26, 1.72]		
Kazaryan et al/2011	10	133	2	39	10.0%	1.50 [0.32, 7.17]		
Ortenzi et al/2019	4	149	3	79	10.4%	0.70 [0.15, 3.20]		
Pedziwiatr et al/2017	37	346	16	174	31.8%	1.18 [0.64, 2.19]	-	
Rodríguez-Hermosa et al/2021	0	70	4	90	3.3%	0.14 [0.01, 2.58]	-	
Total (95% CI)		925		623	100.0%	0.69 [0.40, 1.19]	•	
Total events	66		62					
Heterogeneity: Tau2 = 0.15; Chi2 =	8.38, df=	= 6 (P =	0.21); 12:	= 28%			0.005 0.1 1 10	200
Test for overall effect: Z = 1.33 (P	= 0.18)						Favours [Non-obese] Favours [Obese]	200

Figure S6 Forest plot comparing reported overall postoperative complications rate between the NOb and Ob groups (obesity \geq 30 kg/m² subgroups) (43-46,48-50). CI, confidence interval; M-H, Mantel-Haenszel; df, data frame.

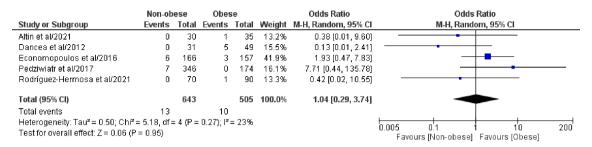


Figure S7 Forest plot comparing reported major (CD \geq III) postoperative complications rate between the NOb and Ob groups (obesity \geq 30 kg/m² subgroups) (44-46,49,50). CI, confidence interval; M-H, Mantel-Haenszel; df, data frame.

SD 1.3		Mean	SD	T-4-1					
1.3			U	rotai	Weight	IV, Random, 95% CI	IV, Random, 95% CI		
	30	3.1	1.3	35	11.9%	-0.60 [-1.23, 0.03]			
0.38	31	1.75	0.14	49	18.6%	-0.50 [-0.64, -0.36]	•		
0.61	166	2	0.61	157	18.6%	0.00 [-0.13, 0.13]	•		
3.46	133	3	1.78	39	9.6%	1.31 [0.50, 2.12]			
3.35	149	4.2	2.6	79	9.9%	0.27 [-0.52, 1.06]	 -		
2.35	346	3.19	1.96	174	15.7%	0.61 [0.23, 0.99]	+		
1.1	70	2.6	1.4	90	15.6%	-0.20 [-0.59, 0.19]	†		
	925			623	100.0%	0.05 [-0.30, 0.41]	•		
Total (95% CI) 925 623 100.0% 0.05 [-0.30, 0.41] Heterogeneity: Tau² = 0.17; Chi² = 59.57, df = 6 (P < 0.00001); I² = 90% Test for overall effect: Z = 0.29 (P = 0.77)									
	3.35 2.35 1.1 df=6	925 df = 6 (P < 0.6	0.61 166 2 3.46 133 3 3.35 149 4.2 2.35 346 3.19 1.1 70 2.6 925 df=6 (P < 0.00001);	0.61	0.61 166 2 0.61 157 3.46 133 3 1.78 39 3.35 149 4.2 2.6 79 2.35 346 3.19 1.96 174 1.1 70 2.6 1.4 90 925 623 df = 6 (P < 0.00001); F = 90%	0.61	0.61 166 2 0.61 157 18.6% 0.00 [-0.13, 0.13] 3.46 133 3 1.78 39 9.6% 1.31 [0.50, 2.12] 3.35 149 4.2 2.6 79 9.9% 0.27 [-0.52, 1.06] 2.35 346 3.19 1.96 174 15.7% 0.61 [0.23, 0.99] 1.1 70 2.6 1.4 90 15.6% -0.20 [-0.59, 0.19] 925 623 100.0% 0.05 [-0.30, 0.41] df = 6 (P < 0.00001); F = 90%		

Figure S8 Forest plot comparing length of hospital stay between the NOb and Ob groups (obesity $\ge 30 \text{ kg/m}^2 \text{ subgroups}$) (43-46,48-50). SD, standard deviation; IV, inverse variance; CI, confidence interval; df, data frame.