Figure S1. Supratentorial location. (A) OR forest plot supratentorial location: Results demonstrated no statistically significant results (OR 2.13, CI 95% 0.98-4.63 and P=0.06). (B) Funnel plot of the supratentorial location in the group of patients with surgical management of intracranial meningiomas, demonstrated very high heterogeneity (P=0.02 and I²=75%). OR, odds ratio; CI, confidence interval; P, P-value; I², the percentage of total variation across studies that is due to heterogeneity rather than chance; SE, standard error.

Α	Supratentorial		Contr	ol		Odds ratio		Odds ratio		
Study or subgroup	Events	Total	Events	Total	Weight	IV, Random, 95% CI	CI Years IV, Random, 95% CI			
Gerber DE et al, 2007 (1)	9	130	11	224	27.9%	1.44 [0.58, 3.57]	2007			
Safaee M et al, 2014 (23)	58	140	89	581	40.3%	3.91 [2.61, 5.86]	2014	- 		
Fluss R et al, 2021 (25)	14	120	17	197	31.9%	1.40 [0.66, 2.95]	2021	 		
Total (95% CI)		390		1002	100.0%	2.13 [0.98, 4.63]		•		
Total events	81		117							
Heterogeneity: Tau ² = 0.	35; Chi²= 1	7.99, df	= 2 (P = 1)	0.02); l ^a	= 75%		H	+ + + + + + + + + + + + + + + + + + + +		
Test for overall effect: Z =	= 1.91 (P =	0.06)					0.01	0.1 1 10 100 Supratentirial Control		

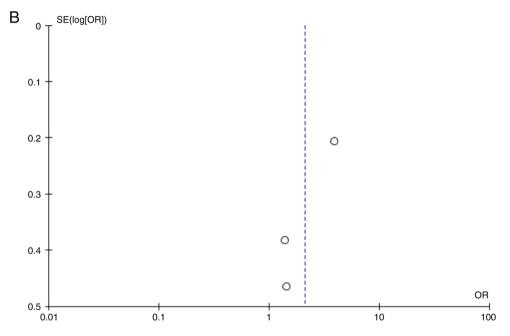


Figure S2. Infratentorial location. (A) OR forest plot infratentorial location: Results demonstrated no statistically significant results [OR 0.83, CI 95% (0.47-1.48), P=0.54]. (B) Funnel plot of the infratentorial location in the group of patients with surgical management of intracranial meningiomas, providing no heterogeneity (P=0.91 and P=0.91). OR, odds ratio; CI, confidence interval; P, P-value; P, P-value; P, P-value; P0, the percentage of total variation across studies that is due to heterogeneity rather than chance; P0, standard error.

Α											
	Infratentorial Control		Odds ratio		Odds ratio						
Study or subgroup	Events	Total	Events	Total	Weight	IV, Random, 95% CI	IV, Random, 95% CI				
Gerber DE et al, 2007 (1)	0	9	11	224	3.9%	0.98 [0.05, 17.85]	2007		_		
Safaee M et al, 2014 (23)	15	115	89	581	96.1%	0.83 [0.46, 1.49]	2014	_	_		
Fluss R et al, 2021 (25)	0	0	17	197		Not estimable	2021		\top		
Total (95% CI)		124		1002	100.0%	0.83 [0.47, 1.48]		4			
Total events	15		117								
Heterogeneity: Tau ² = 0.	00; Chi ² =	0.01, di	f=1 (P=	0.91);	I² = 0%		<u> </u>				$\overline{}$
Test for overall effect: Z:	Test for overall effect: Z = 0.62 (P = 0.54)						0.01	0.1	1	10	100
	•	,						Infratentoria	al Conti	rol	

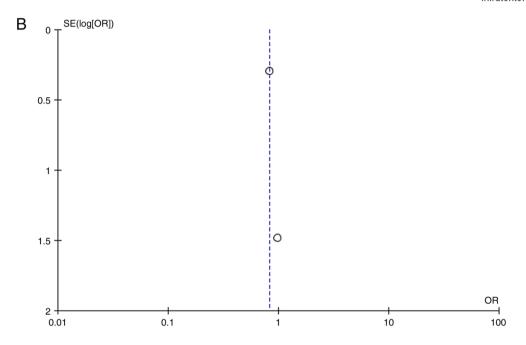


Figure S3. Skull base location. (A) OR Forest plot skull base location: Results demonstrated no statistically significant results (OR 0.58, CI 95% 0.23-1.46 and P=0.25). (B) Funnel plot of the skull base location in the group of patients with surgical management of intracranial meningiomas, providing low heterogeneity (P=0.23 and I²=33%). OR, odds ratio; CI, confidence interval; P, P-value; I², the percentage of total variation across studies that is due to heterogeneity rather than chance; SE, standard error.

Α	Skall b	ase	Control			Odds ratio		Odds ratio					
Study or subgroup	Events	Total	Events	Total	Weight	IV, Random, 95% CI	Years		IV, Rand	dom, 95%	CI		
Gerber DE et al, 2007 (1)	0	85	11	224	9.4%	0.11 [0.01, 1.86]	2007	←	•	+			
Safaee M et al, 2014 (23)	16	115	89	581	64.3%	0.89 [0.50, 1.59]	2014		-	-			
Fluss R et al, 2021 (25)	2	59	17	197	26.3%	0.37 [0.08, 1.66]	2021		-	+			
Total (95% CI)		259		1002	100.0%	0.58 [0.23, 1.46]			⋖				
Total events	18		117										
Heterogeneity: Tau ² = 0	.26; Chi2:	= 2.98,	df = 2 (P	= 0.23)	; I² = 33%			<u> </u>		+			
Test for overall effect: Z	= 1.15 (P	= 0.25)					0.01	0.1	1	10	100	
									Skall Bas	se Contri	οl		

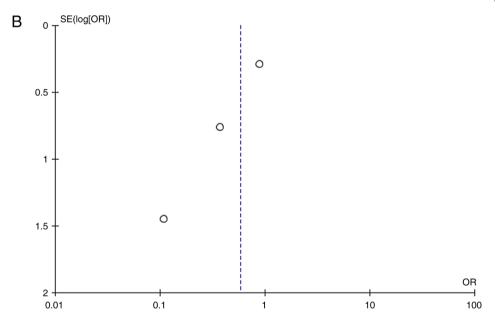


Figure S4. Ki-67 <2%. (A) OR Forest plot Ki-67 <2%: Results demonstrated no statistically significant results (OR 0.98, CI 95% 0.72-1.31 and P=0.87); (B) Funnel plot of the Ki-67 <2% in the group of patients with surgical management of intracranial meningiomas, providing no heterogeneity (P=0.76 and I^2 =0%). OR, odds ratio; CI, confidence interval; P, P-value; I^2 , the percentage of total variation across studies that is due to heterogeneity rather than chance; SE, standard error.

Α	Ki-67 <2% Contr		Control Odds ratio				Odds ratio				
Study or subgroup	Events	Total	Events	Total	Weight	IV, Random, 95% CI	Years	IV, Random, 95% CI			
Gerber DE et al, 2007 (1)	10	204	11	224	11.4%	1.00 [0.41, 2.40]	2007		_		
Hoefnagel D et a,l 2014 (9)	71	468	89	581	76.9%	0.99 [0.70, 1.39]	2014	#			
Safaee M et al, 2014 (23)	7	376	12	467	9.9%	0.72 [0.28, 1.85]	2014				
Fluss R et al, 2021 (25)	1	5	17	197	1.7%	2.65 [0.28, 25.04]	2021	-			
Total (95% CI)		1053		1469	100.0%	0.98 [0.72, 1.31]		+			
Total events	89		129								
Heterogeneity: Tau ² = 0.00	i; Chi²= ˈ	1.17, df	0.01	 							
Test for overall effect: Z = 0.16 (P = 0.87)								0.1 1 10 10	0		
								Ki-67 2% control			

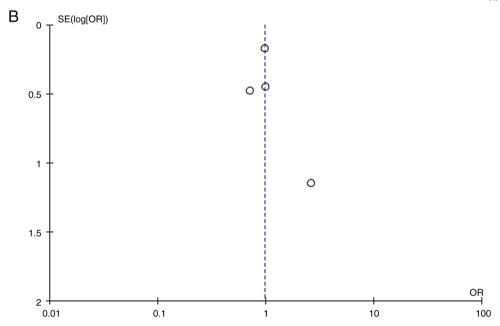


Figure S5. Ki-67 2-10%. (A) Forest plot Ki-67 2-10%: Results demonstrated no statistically significant result (OR 1.30, CI 95% 0.84-2.01 and P=0.24). (B) Funnel plot, testing the sensitivity with funnel plot for Ki-67 2-10% there was no heterogeneity and thus low publication bias (P=0.45 and I^2 =0%). OR, odds ratio; CI, confidence interval; P, P-value; I^2 , the percentage of total variation across studies that is due to heterogeneity rather than chance; SE, standard error.

Α	Ki-67 2-10%		Ki-67 2–10% Control			Odds ratio		Odds ratio			
Study or subgroup	Events	Total	Events	Total	Weight	IV, Random, 95% CI	Years	IV, Random, 95% CI			
Gerber DE et al, 2007 (1)	1	18	11	224	4.3%	1.14 [0.14, 9.36]	2007				
Hoefnagel D et a,l 2014 (9)	13	88	89	581	47.9%	0.96 [0.51, 1.80]	2014				
Safaee M et al, 2014 (23)	5	77	12	467	16.6%	2.63 [0.90, 7.70]	2014	-			
Fluss R et al, 2021 (25)	12	99	17	197	31.2%	1.46 [0.67, 3.19]	2021	 -			
Total (95% CI)		282		1469	100.0%	1.30 [0.84, 2.01]		•			
Total events	31		129								
Heterogeneity: Tau ² = 0.00	0 ; $Chi^2 = 3$	2.66, df	= 3 (P =		l	- 					
Test for overall effect: $Z = 1$	1.18 (P=	0.24)					0.01	0.1 1 10 100			
								Ki-67 2-10% control			

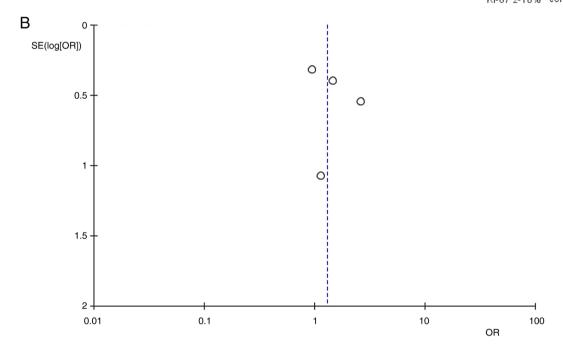


Figure S6. Ki-67 >10%. (A) Forest plot Ki-67 >10%: Results demonstrated no statistically significant result [OR 1.37, CI 95% (0.43-2.80), P=0.38]. (B) Funnel plot, testing the sensitivity with funnel plot for Ki-67 >10% there was no heterogeneity and thus low publication bias (P=0.86 and I²=0%). OR, odds ratio; CI, confidence interval; P, P-value; I², the percentage of total variation across studies that is due to heterogeneity rather than chance; SE, standard error.

Α	Ki-67 >10%		Control			Odds ratio	Odds ratio				
Study or subgroup	Events	Total	Events	Total	Weight	IV, Random, 95% CI	Years	IV, Random, 95% CI			
Gerber DE et al, 2007 (1)	0	2	11	224	5.3%	3.71 [0.17, 81.91]	2007				
Hoefnagel D et a,l 2014 (9)	5	25	89	581	50.3%	1.38 [0.51, 3.78]	2014	_			
Safaee M et al, 2014 (23)	0	31	12	467	6.3%	0.58 [0.03, 10.00]	2014		+	_	
Fluss R et al, 2021 (25)	4	35	17	197	38.2%	1.37 [0.43, 4.33]	2021	_	 		
Total (95% CI)		93		1469	100.0%	1.37 [0.67, 2.80]			*		
Total events	9		129								
Heterogeneity: Tau ² = 0.00	= 3 (P =	<u> </u>				$\overline{}$					
Test for overall effect: Z=	0.87 (P=	0.38)					0.01	0.1	1	10	100
·							ki-67 >10	% control			

