

Appendix 1

Table 1 Risk ratio for primary bleeding after tonsillectomy using coblation compared to other surgical methods (random effects modelling). Risk of bias and event data as presented by the systematic review authors.

Study or Subgroup	Coblation Events Total	Comparator technique Events Total	Weight	Risk Ratio M-H, Random, 95% CI	Risk Ratio M-H, Random, 95% CI	Risk of Bias A B C D E F G
1.5.1 Cold techniques						
Bäck 2001 (1)	5 18	3 19	38.6%	1.76 [0.49, 6.31]		
Elbadawey 2015 (2)	0 20	0 40		Not estimable		
Gustavii 2010 (3)	0 38	1 41	6.3%	0.36 [0.02, 8.55]		
Jayasinghe 2005 (4)	0 30	0 30		Not estimable		
Matin 2013 (5)	0 100	0 100		Not estimable		
Mitic 2007 (6)	0 20	0 20		Not estimable		
Omrani 2012 (7)	1 49	2 48	11.3%	0.49 [0.05, 5.23]		
Paramasivan 2012 (8)	1 50	1 50	8.4%	1.00 [0.06, 15.55]		
Philpott 2005 (9)	0 43	0 49		Not estimable		
Roje 2009 (10)	0 44	0 44		Not estimable		
Shapiro 2007 (11)	0 23	0 23		Not estimable		
Wang 2005 (12)	0 50	0 50		Not estimable		
Wang 2009 (13)	0 46	0 46		Not estimable		
Wang 2010 (14)	1 30	0 30	6.3%	3.00 [0.13, 70.83]		
Zhong 2006 (15)	0 26	0 30		Not estimable		
Subtotal (95% CI)	587	620	70.9%	1.22 [0.48, 3.14]		
Total events 8 7						
Heterogeneity: Tau ² = 0.00; Chi ² = 1.80, df = 4 (P = 0.77); I ² = 0%						
Test for overall effect: Z = 0.42 (P = 0.68)						
1.5.2 Hot techniques						
D'Eredità 2009	0 78	0 79		Not estimable		
D'Eredità 2010	0 32	0 64		Not estimable		
Elbadawey 2015	0 20	0 40		Not estimable		
Hasan 2008	1 20	4 20	14.3%	0.25 [0.03, 2.05]		
Hong 2013	0 40	0 40		Not estimable		
Kim 2013a	1 19	1 34	8.6%	1.79 [0.12, 27.01]		
Parsons 2006	0 47	0 87		Not estimable		
Shah 2002	0 17	0 17		Not estimable		
Stoker 2004	1 44	0 45	6.3%	3.07 [0.13, 73.31]		
Tan 2006	0 29	0 38		Not estimable		
Temple 2001	0 18	0 20		Not estimable		
Subtotal (95% CI)	364	484	29.1%	0.79 [0.17, 3.77]		
Total events 3 5						
Heterogeneity: Tau ² = 0.18; Chi ² = 2.20, df = 2 (P = 0.33); I ² = 9%						
Test for overall effect: Z = 0.29 (P = 0.77)						
Total (95% CI)	951	1104	100.0%	1.07 [0.48, 2.36]		
Total events 11 12						
Heterogeneity: Tau ² = 0.00; Chi ² = 4.30, df = 7 (P = 0.74); I ² = 0%						
Test for overall effect: Z = 0.16 (P = 0.87)						
Test for subgroup differences: Chi ² = 0.22, df = 1 (P = 0.64), I ² = 0%						
Footnotes						
(1) coagulation warm						
(2) coagulation warm						
(3) coagulation warm						
(4) coagulation warm						
(5) coagulation warm (ligature and bipolar)						
(6) coagulation warm						
(7) coagulation not reported						
(8) coagulation with ligatures						
(9) coagulation not reported						
(10) coagulation warm						
(11) coagulation not reported						
(12) coagulation not reported						
(13) coagulation not reported						
(14) coagulation not reported						
(15) coagulation not reported						

Risk of bias legend
 (A) Random sequence generation
 (B) Allocation concealment
 (C) Blinding of participants and personnel
 (D) Blinding of outcome assessment
 (E) Incomplete outcome data
 (F) Selective reporting
 (G) Other

Study or Subgroup	Coblation		Comparator technique		Weight	Risk Difference	Risk Difference	Risk of Bias						
	Events	Total	Events	Total		M-H, Random, 95% CI	M-H, Random, 95% CI	A	B	C	D	E	F	G
1.5.1 Cold techniques														
Bäck 2001 (1)	5	18	3	19	0.1%	0.12 [-0.14, 0.38]								
Elbadawey 2015 (2)	0	20	0	40	1.6%	0.00 [-0.07, 0.07]								
Gustavii 2010 (3)	0	38	1	41	2.0%	-0.02 [-0.09, 0.04]								
Jayasinghe 2005 (4)	0	30	0	30	2.2%	0.00 [-0.06, 0.06]								
Matin 2013 (5)	0	100	0	100	23.4%	0.00 [-0.02, 0.02]								
Mitic 2007 (6)	0	20	0	20	1.0%	0.00 [-0.09, 0.09]								
Omrani 2012 (7)	1	49	2	48	1.8%	-0.02 [-0.09, 0.05]								
Paramasivan 2012 (8)	1	50	1	50	2.9%	0.00 [-0.05, 0.05]								
Philpott 2005 (9)	0	43	0	49	5.0%	0.00 [-0.04, 0.04]								
Roje 2009 (10)	0	44	0	44	4.7%	0.00 [-0.04, 0.04]								
Shapiro 2007 (11)	0	23	0	23	1.3%	0.00 [-0.08, 0.08]								
Wang 2005 (12)	0	50	0	50	6.0%	0.00 [-0.04, 0.04]								
Wang 2009 (13)	0	46	0	46	5.1%	0.00 [-0.04, 0.04]								
Wang 2010 (14)	1	30	0	30	1.1%	0.03 [-0.05, 0.12]								
Zhong 2006 (15)	0	26	0	30	1.9%	0.00 [-0.07, 0.07]								
Subtotal (95% CI)		587		620	60.3%	-0.00 [-0.01, 0.01]								
Total events	8		7											
Heterogeneity: Tau ² = 0.00; Chi ² = 2.40, df = 14 (P = 1.00); I ² = 0%														
Test for overall effect: Z = 0.09 (P = 0.93)														
1.5.2 Hot techniques														
D'Eredità 2009	0	78	0	79	14.5%	0.00 [-0.02, 0.02]								
D'Eredità 2010	0	32	0	64	4.0%	0.00 [-0.05, 0.05]								
Elbadawey 2015	0	20	0	40	1.6%	0.00 [-0.07, 0.07]								
Hasan 2008	1	20	4	2										

Study or Subgroup	Coblation		Comparator intervention		Weight	Risk Ratio		Risk Ratio		Risk of Bias						
	Events	Total	Events	Total		M-H, Random, 95% CI	M-H, Random, 95% CI	A	B	C	D	E	F	G		

Study or subgroup	Events	Total	Events	Total	Weight	M-H, Random, 95% CI	M-H, Random, 95% CI	A	B	C	D	E	F	G
1.6.1 Cold techniques														
Anthony 2006 (1)	9	66	2	97	6.5%	6.61 [1.48, 29.64]		+	-	-	+	-	?	?
Bäck 2001 (2)	9	18	8	19	29.6%	1.19 [0.59, 2.39]		+	+	+	+	+	+	+
Elbadawey 2015 (3)	0	20	0	40		Not estimable		+	+	+	+	+	+	+
Gustavii 2010 (4)	2	38	0	41	1.6%	5.38 [0.27, 108.69]		+	+	+	+	+	+	+
Jayasinghe 2005 (5)	1	30	1	30	2.0%	1.00 [0.07, 15.26]		+	+	+	+	+	+	+
Matin 2013 (6)	0	100	1	100	1.4%	0.33 [0.01, 8.09]		?	?	?	?	?	?	?
Mitic 2007 (7)	0	20	0	20		Not estimable		+	+	+	+	+	+	+
Omrani 2012 (8)	1	49	5	48	3.3%	0.20 [0.02, 1.62]		+	+	+	+	+	+	+
Philpott 2005 (9)	11	43	8	49	22.0%	1.57 [0.69, 3.53]		?	?	?	?	?	?	?
Roje 2009 (10)	0	44	0	44		Not estimable		+	+	+	+	+	+	+
Shapiro 2007 (11)	1	23	0	23	1.5%	3.00 [0.13, 70.02]		+	+	+	+	+	+	+
Wang 2005 (12)	1	50	0	50	1.4%	3.00 [0.13, 71.92]		?	?	?	?	?	?	?
Wang 2009 (13)	0	46	1	46	1.4%	0.33 [0.01, 7.98]		?	?	?	?	?	?	?
Wang 2010 (14)	0	30	1	30	1.5%	0.33 [0.01, 7.87]		?	?	?	?	?	?	?
Zhong 2006 (15)	1	26	0	30	1.5%	3.44 [0.15, 81.09]		?	?	?	?	?	?	?
Subtotal (95% CI)		603		667	73.6%	1.41 [0.86, 2.31]								
Total events	36		27											
Heterogeneity: Tau ² = 0.05; Chi ² = 11.70, df = 11 (P = 0.39); I ² = 6%														
Test for overall effect: Z = 1.36 (P = 0.17)														
1.6.2 Hot techniques														
D'Eredità 2009 (16)	1	78	0	79	1.4%	3.04 [0.13, 73.45]		+	+	+	+	+	+	+
D'Eredità 2010 (17)	1	32	2	64	2.6%	1.00 [0.09, 10.62]		+	+	+	+	+	+	+
Elbadawey 2015 (18)	1	20	1	40	2.0%	2.00 [0.13, 30.34]		+	+	+	+	+	+	+
Hasan 2008 (19)	1	20	3	20	3.1%	0.33 [0.04, 2.94]		?	?	?	?	?	?	?
Hong 2013 (20)	0	40	1	40	1.4%	0.33 [0.01, 7.95]		?	?	?	?	?	?	?
Kim 2013a (21)	2	19	3	34	5.0%	1.19 [0.22, 6.52]		?	?	?	?	?	?	?
Parsons 2006 (22)	1	47	3	87	2.9%	0.62 [0.07, 5.77]		?	?	?	?	?	?	?
Shah 2002 (23)	1	17	0	17	1.5%	3.00 [0.13, 68.84]		?	?	?	?	?	?	?
Stoker 2004 (24)	3	44	2	45	4.8%	1.53 [0.27, 8.74]		?	?	?	?	?	?	?
Tan 2006 (25)	2	29	0	38	1.6%	6.50 [0.32, 130.40]		+	+	+	+	+	+	+
Temple 2001 (26)	0	18	0	20		Not estimable		?	?	?	?	?	?	?
Subtotal (95% CI)		364		484	26.4%	1.17 [0.56, 2.46]								
Total events	13		15											
Heterogeneity: Tau ² = 0.00; Chi ² = 4.41, df = 9 (P = 0.88); I ² = 0%														
Test for overall effect: Z = 0.42 (P = 0.68)														
Total (95% CI)		967		1151	100.0%	1.34 [0.91, 1.96]								
Total events	49		42											
Heterogeneity: Tau ² = 0.00; Chi ² = 16.26, df = 21 (P = 0.76); I ² = 0%														
Test for overall effect: Z = 1.49 (P = 0.14)														
Test for subgroup differences: Chi ² = 0.16, df = 1 (P = 0.69), I ² = 0%														
Footnotes														
(1) coagulation not reported														
(2) coagulation warm														
(3) coagulation warm														
(4) coagulation warm														
(5) coagulation hot														
(6) coagulation warm (ligature and bipolar)														
(7) coagulation warm														
(8) coagulation not reported														
(9) coagulation not reported														
(10) coagulation warm														
(11) coagulation not reported														
(12) coagulation not reported														
(13) coagulation not reported														
(14) coagulation not reported														
(15) coagulation not reported														
(16) molecular resonance														
(17) molecular resonance and monopolar electrocautery														
(18) laser														
(19) bipolar														
(20) monopolar electrocautery														
(21) monopolar electrocautery and laser														
(22) monopolar electrocautery														
(23) monopolar electrocautery														
(24) monopolar electrocautery														
(25) monopolar electrocautery														
(26) bipolar														

Favours coblation

Favours comparator

Risk of bias legend

(A) Random sequence generation

(B) Allocation concealment

(C) Blinding of participants and personnel

(D) Blinding of outcome assessment

(E) Incomplete outcome data

(F) Selective reporting

(G) Other

