臺北市立萬芳醫院 - 委託財團法人臺北醫學大學辦理
Taipei Municipal Wan fang Hospital (Managed by Taipei Medical University)

大腸息肉，怎麼切比較好？

Effectiveness and safety of cold versus hot snare polypectomy: A meta-analysis

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20190305

Outline

Abbreviation

Scenario

Background

PICO

Search

Appraise

Discussion

Abbreviation

CSP	Cold snare polypectomy	冷切除
HSP	Hot snare polypectomy	熱切除
ESGE	European Society of Gastrointestinal Endoscopy	
RCT	Randomized controlled trial	隨機對照試驗
OR	Odds ratio	勝算比
CI	Confidence interval	信賴區間
SD	Standard deviation	標準差

情境

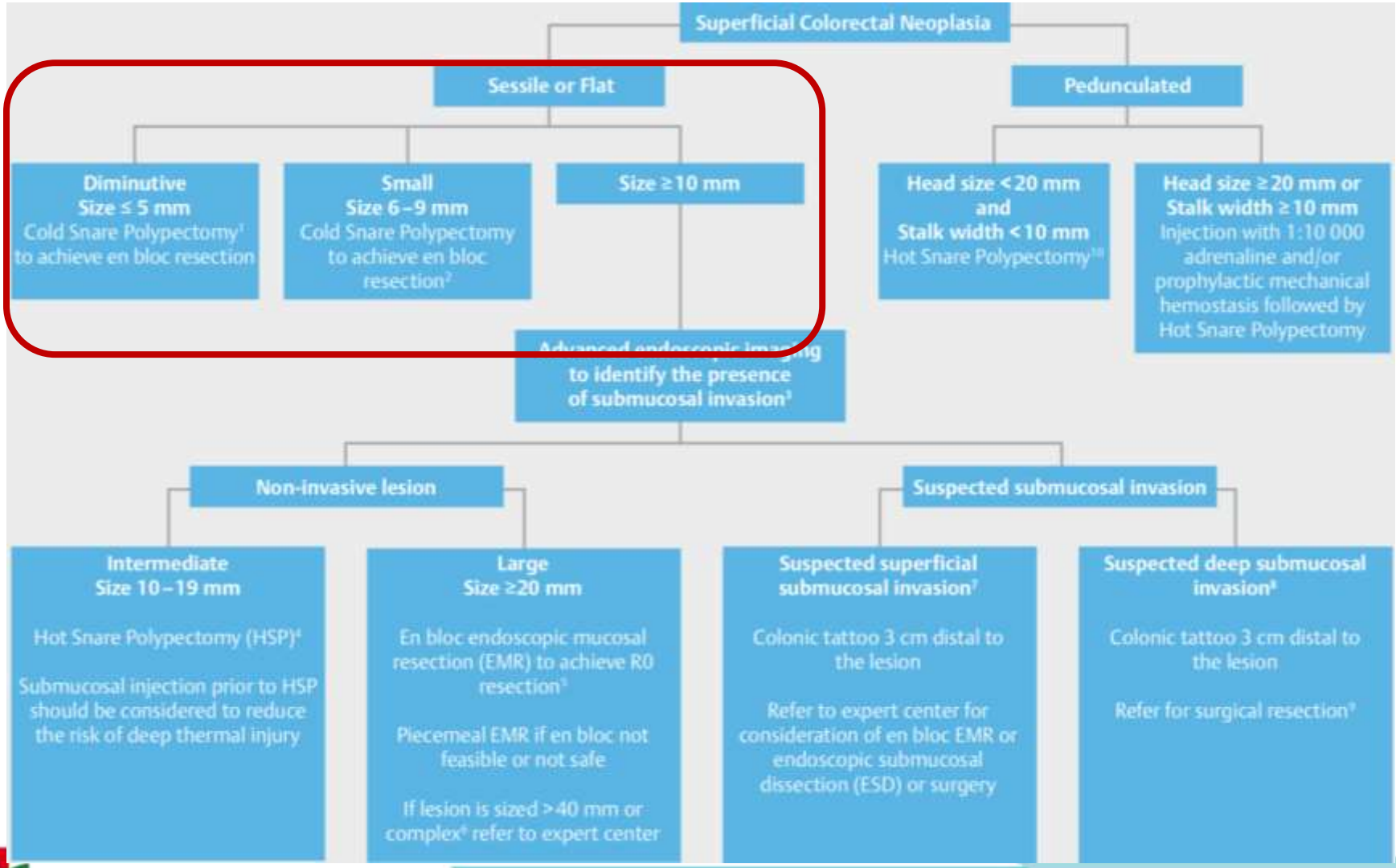
阿明，52歲中年男性，事業有成，會抽菸喝酒。

一日在國健局糞便潛血檢測中，發現檢驗結果為陽性。於是接受大腸鏡檢查，發現有數顆小於一公分的大腸息肉。檢查時僅先作了切片確認息肉型態，其結果為常見之管狀腺瘤(tubular adenoma)。

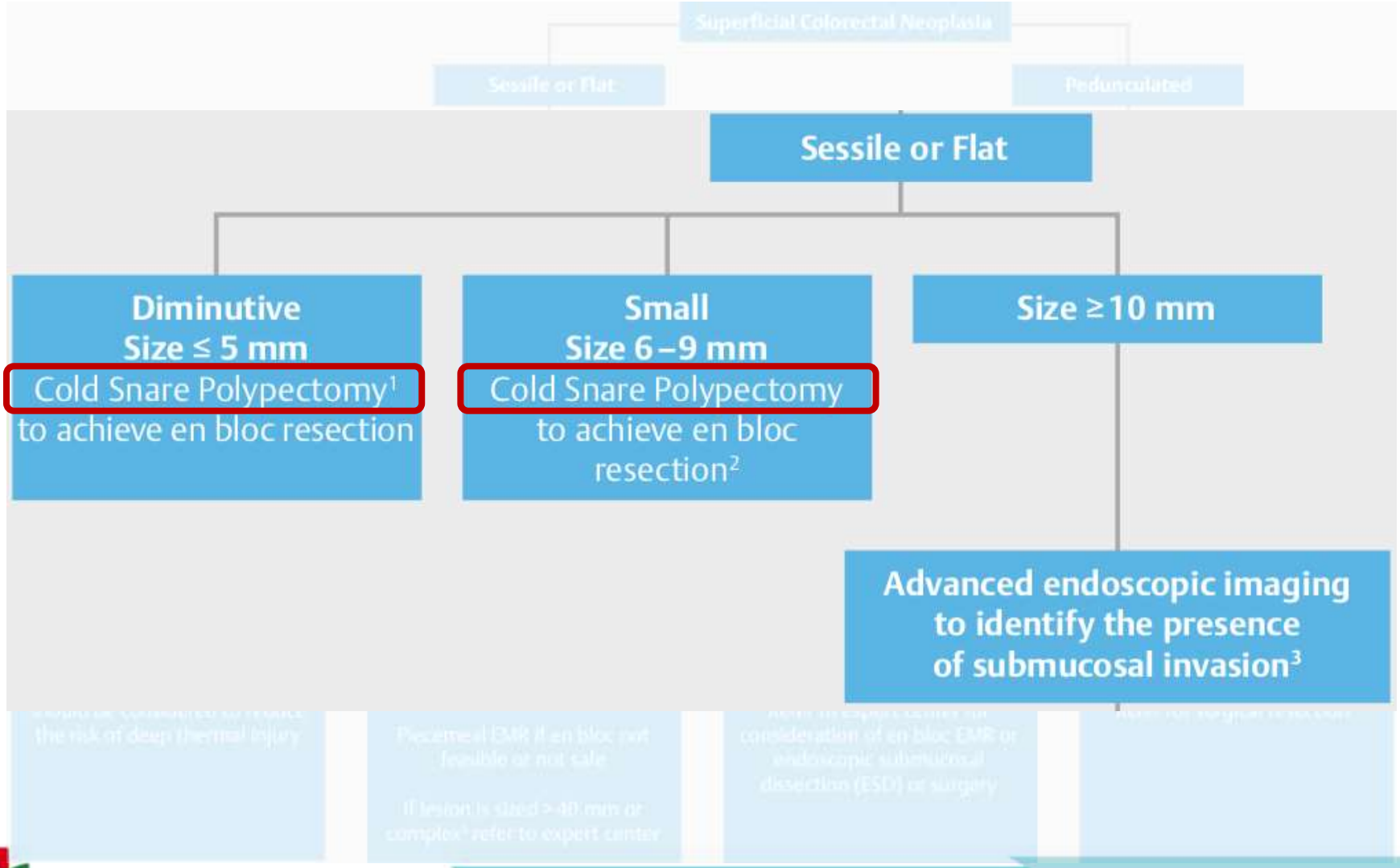
因此醫師建議再做一次大腸鏡，將所發現之息肉完整切除。因為若不處理的話，經年累月後這種息肉有機會轉惡。

而阿明也因些上網自行做功課，發現息肉切除的方式有所不同，常見為熱切除(hot snare polypectomy)及冷切除(cold snare polypectomy)。阿明準備在檢查時和醫師討論一下。

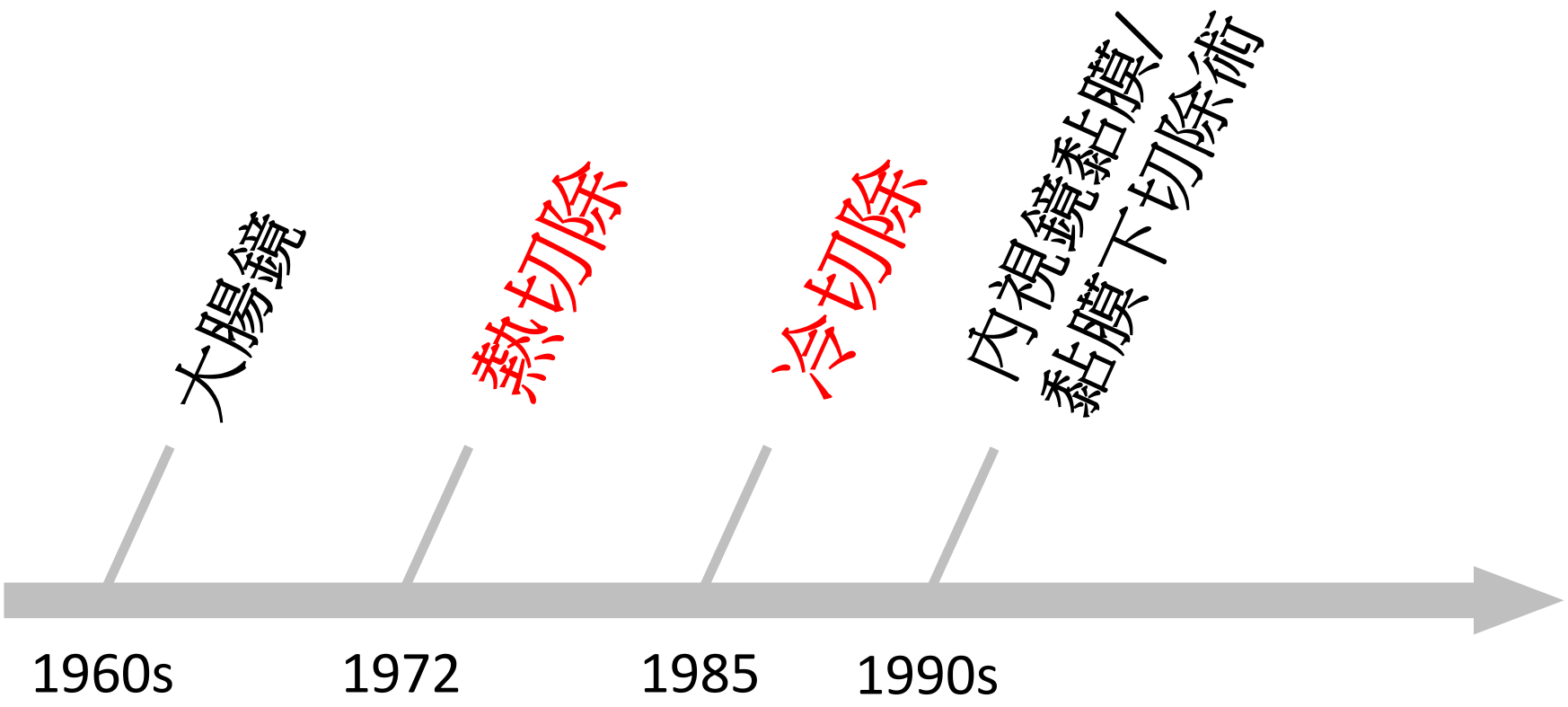
大腸息肉切除：ESGE guideline



大腸息肉切除：ESGE guideline

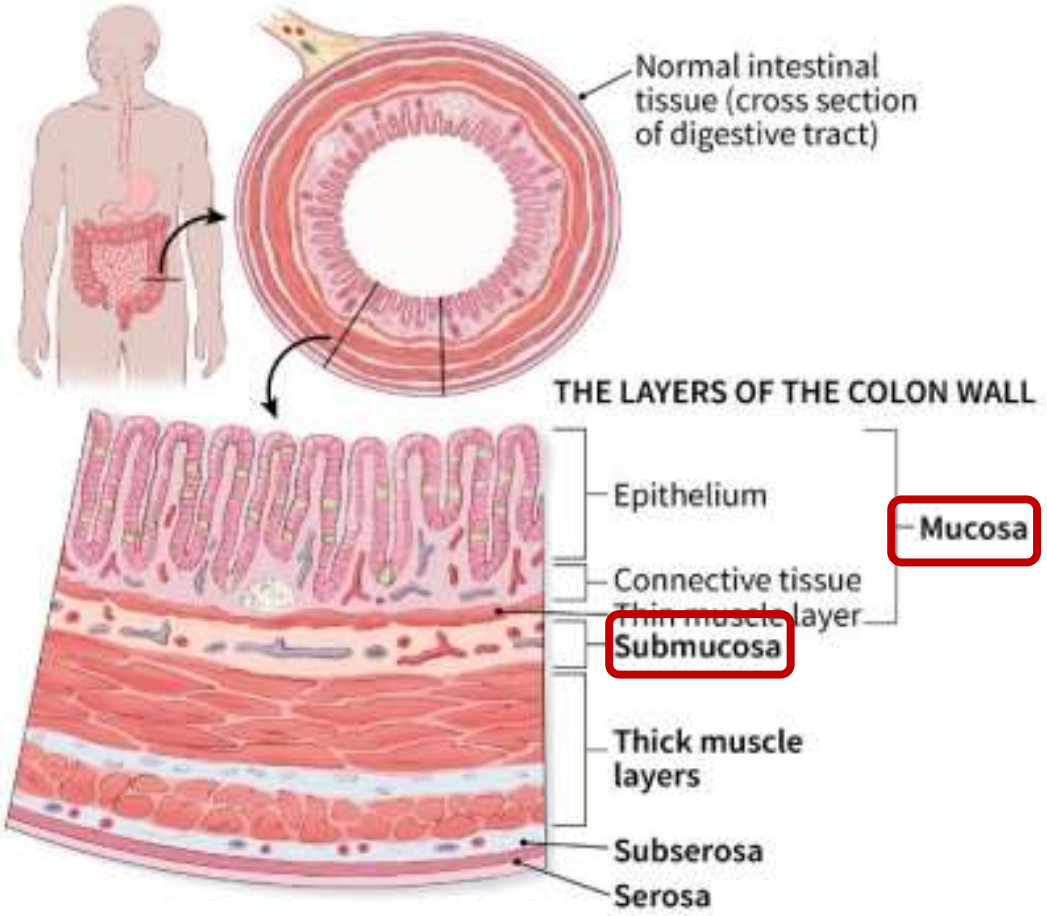


Colon polyp treatment



冷切除 vs. 熱切除：萬芳實例

冷切除 vs. 熱切除: 切除深度



冷切除，熱切除

熱切除

American Cancer Society, 2018

冷切除 vs. 熱切除: 切除深度

TABLE 4. Histologic resection depth achieved by HSP or CSP

	HSP (n = 27)	CSP (n = 25)	*P* value
Containing MM tissue	26 (96.3%)	23 (92.0%)	.603
(95% CI)	(81.7%-99.3%)	(75.0%-97.8%)	
Containing SM tissue	22 (81.5%)	6 (24.0%)	<.001*
(95% CI)	(63.3%-91.8%)	(11.5%-43.4%)	
Thickness of SM tissue, μm			<.001*
Mean ± SD	933 ± 922	51 ± 110	
Median (range)	600 (0-3600)	0 (0-400)	

要必要切這麼深嗎？

Suzuki et al. 2018

冷切除 vs. 熱切除: 完全切除

TABLE 5. Studies comparing the histologic complete resection rate between HSP and CSP

Studies	Procedure	No. of patients	No. of polyps	Polyp size (mm)	Complete resection	
					Rate (%)	*P* value
2011, RCT	HSP	40	104	5.5	96	.97
	CSP	40	101	5.7	96	
2013, RCT???	HSP	48	71	7.6	94.4	.906
	CSP	49	77	7.2	94.9	
2014, RCT	HSP	35	81	6.8	93	.80
	CSP	35	78	6.5	94	
2017, propensity score matching		177	402	5	89.3	<.001*
		231	402	5	75.1	
2017, retrospective cohort		—	137	7.2	70.5	<.001*
		—	324	5.9	47.3	

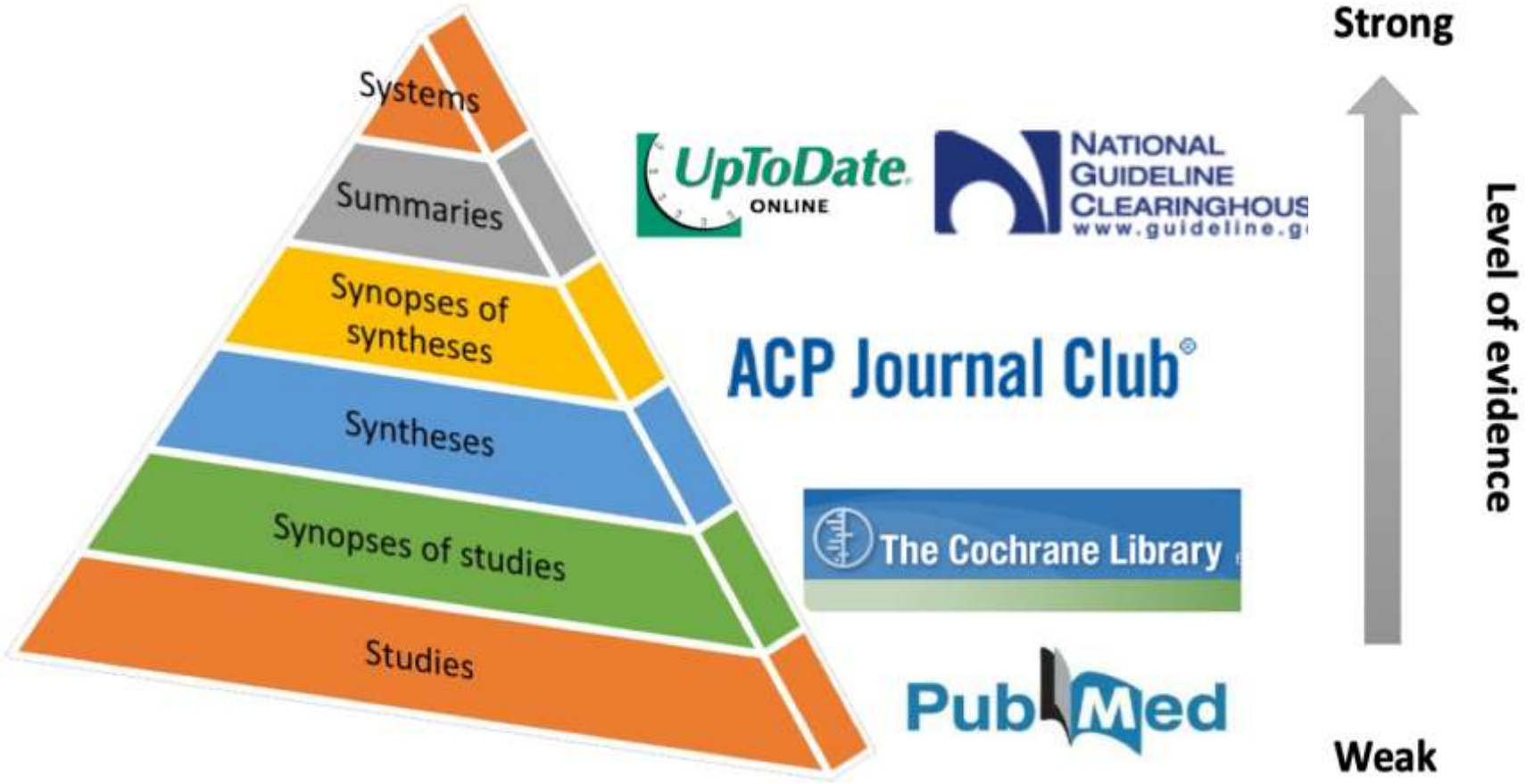
衆説紛芸？

Suzuki et al. 2018

那麼，阿明的息肉要怎麼切？

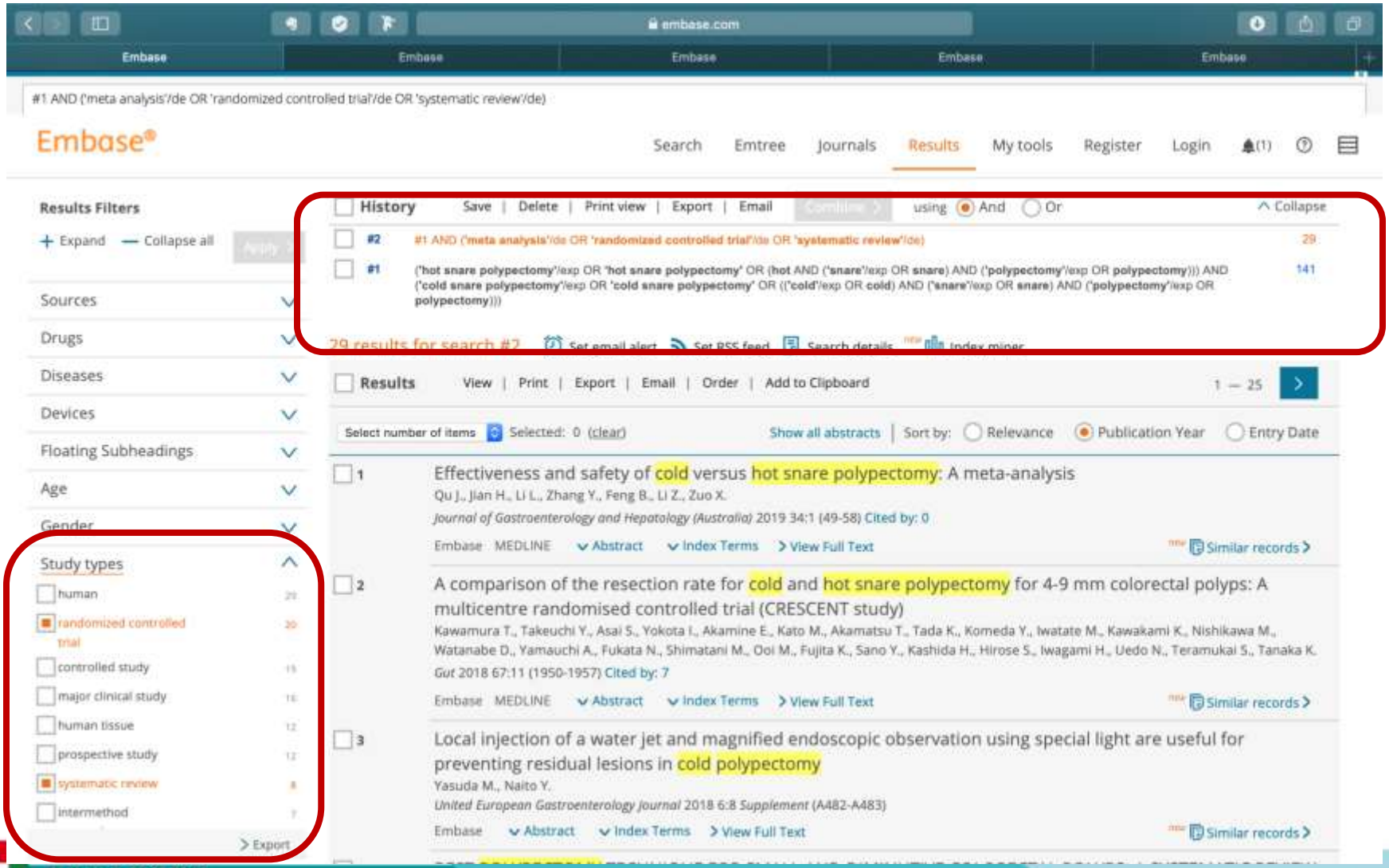
Problem/ Patient	(Mid-aged man with) small size (pre-cancerous) polyp (< 1 cm)
Intervention	Cold snare polypectomy
Comparison	Hot snare polypectomy
Outcome	Complete resection rate, resection time, complications (bleeding, perforation)

搜尋多元資料庫



Center for evidence based medicine, Oxford University

Embase搜尋過程


embase.com
#1 AND ('meta analysis'/de OR 'randomized controlled trial'/de OR 'systematic review'/de)
Embase
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Diseases
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Age
Gender
Study types
human
randomized controlled trial
controlled study
major clinical study
human tissue
prospective study
systematic review
intermethod
Export
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Print view
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Email
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using And Or
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#2 #1 AND ('meta analysis'/de OR 'randomized controlled trial'/de OR 'systematic review'/de) 29
#1 ('hot snare polypectomy'/exp OR 'hot snare polypectomy' OR (hot AND ('snare'/exp OR snare) AND ('polypectomy'/exp OR polypectomy))) AND ('cold snare polypectomy'/exp OR 'cold snare polypectomy' OR (('cold'/exp OR cold) AND ('snare'/exp OR snare) AND ('polypectomy'/exp OR polypectomy))) 141
29 results for search #2
Set email alert
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Results
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1 — 25
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1 Effectiveness and safety of cold versus hot snare polypectomy: A meta-analysis
Qu J., Jian H., Li L., Zhang Y., Feng B., Li Z., Zuo X.
Journal of Gastroenterology and Hepatology (Australia) 2019 34:1 (49-58) Cited by: 0
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2 A comparison of the resection rate for cold and hot snare polypectomy for 4-9 mm colorectal polyps: A multicentre randomised controlled trial (CRESCENT study)
Kawamura T., Takeuchi Y., Asai S., Yokota I., Akamine E., Kato M., Akamatsu T., Tada K., Komeda Y., Iwatate M., Kawakami K., Nishikawa M., Watanabe D., Yamauchi A., Fukata N., Shimatani M., Ooi M., Fujita K., Sano Y., Kashida H., Hirose S., Iwagami H., Uedo N., Teramukai S., Tanaka K.
Gut 2018 67:11 (1950-1957) Cited by: 7
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3 Local injection of a water jet and magnified endoscopic observation using special light are useful for preventing residual lesions in cold polypectomy
Yasuda M., Naito Y.
United European Gastroenterology Journal 2018 6:8 Supplement (A482-A483)
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The meta-analysis

Journal of Gastroenterology and Hepatology
JGHF
doi:10.1111/jgh.14464

META ANALYSIS AND SYSTEMATIC REVIEW

Effectiveness and safety of cold *versus* hot snare polypectomy: A meta-analysis

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Impact factor: **3.483**

Rank in GASTROENT & HEPAT: **27/80 (33.8%)**

評讀：

CASP- VIP

(V)效/信度:(1)問題是否清楚明確

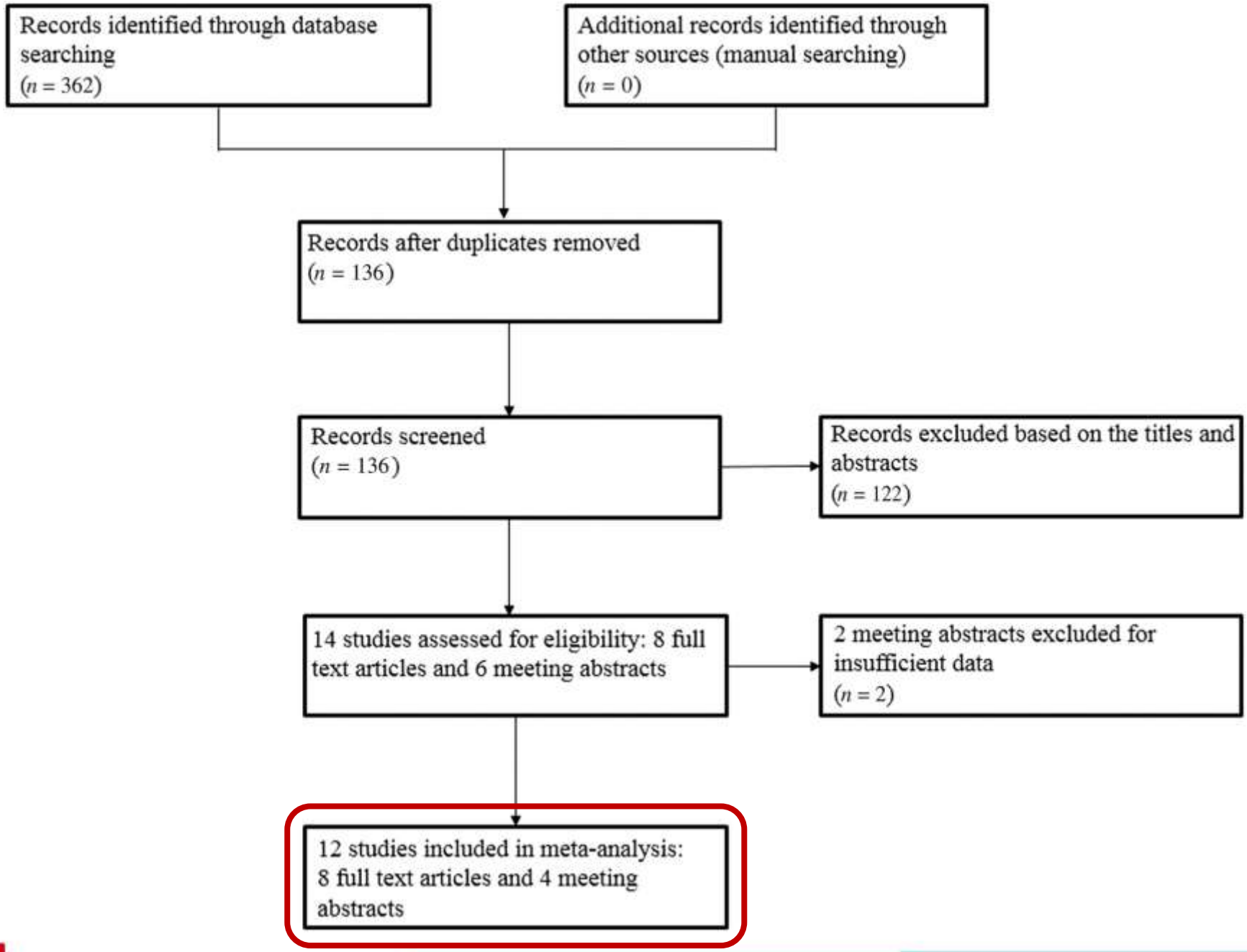
研究族群	給予措施	考量結果
“the aim of this systematic review and meta-analysis was to compare the effectiveness between CSP and HSP in treatment of colorectal polyps sized ≤ 10 mm and evaluate the safety and efficiency of these two techniques.”		

P	Colon polyp (≤10 mm)
I	Cold snare polypectomy
C	Hot snare polypectomy
O	Safety and efficacy

(V)效/信度:(2)是否搜尋適當文獻

提及系統性文獻回顧
“the aim of this systematic review and meta-analysis was to compare the effectiveness between CSP and HSP in treatment of colorectal polyps sized ≤ 10 mm and evaluate the safety and efficiency of these two techniques.”

以隨機對照試驗的研究文獻評值
“Finally, 12 randomized controlled trials (RCTs) were included in our meta-analysis, including eight full texts of articles and four meeting abstracts.” ➔ 僅在搜尋結果中提及，並未在method中作說明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Additional records identified through other sources (manual searching)
(n = 0)
Records after duplicates removed
(n = 136)
Records screened
(n = 136)
Records excluded based on the titles and abstracts
(n = 122)
14 studies assessed for eligibility: 8 full text articles and 6 meeting abstracts
2 meeting abstracts excluded for insufficient data
(n = 2)
12 studies included in meta-analysis: 8 full text articles and 4 meeting abstracts

(V)效/信度:(3)是否納入相關研究

搜尋資料庫
“To April 2018, we searched the following electronic databases starting with their dates of inception: Medline, EMBASE, the Cochrane Central Register of Controlled Trials (CENTRAL), and Web of Science…“

由參考資料清單再搜尋
“In addition, citations in eligible studies, reviews, or meta-analyses related to CSP in colorectal polyps were also screened.”

與專家聯繫未發表文獻
“In addition, we also contacted five authors for missing information, three of whom replied to us with detailed information.”

(V)效/信度:(3)是否納入相關研究

非英語文獻
“The language was limited to studies published in English. “

使用關鍵字
“…using the key words “cold snare” and “polypectomy.” ” ➔ 試圖用更少的關鍵字找出更多的文章

出版誤差
“We used funnel plot to evaluate publication bias with a P value < 0.10 defined as significant asymmetry. ” “An evaluation of publication bias was also difficult to carry out due to the small number of studies. ”

(V)效/信度:(4)是否評估文獻品質

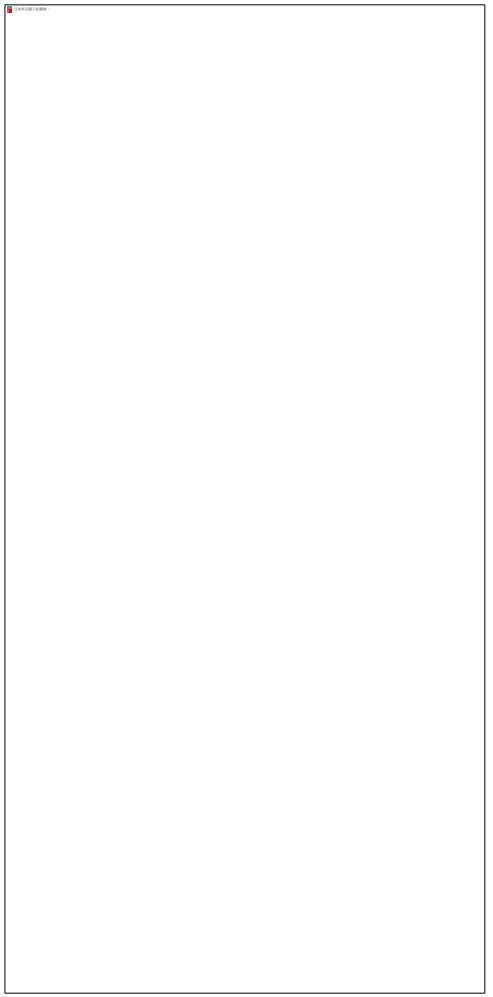
如何進行評讀及使用評讀工具
“The Cochrane Handbook for Systematic Reviews of Interventions (Figs S1 and S2) was used to assess the quality of the included studies. This process was performed independently by two investigators (Q. J. Y. and J. H. X.), and disagreement was resolved by discussion. “

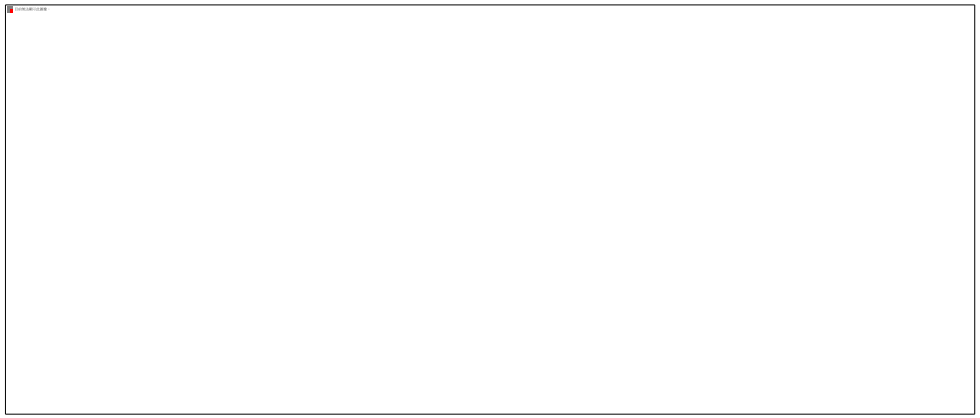
(V)效/信度:(4)是否評估文獻品質

➔表現性誤差的品質不良

➔其中一篇不是RCT

➔ 所收錄文章之息肉大小不一致，但差距不大





(V)效/信度:(5)若有合併，是否合理

有無合併

“Data were extracted, pooled, and analyzed using the RevMan 5.3 software (Cochrane Collaboration, Oxford, UK). “
“For binary outcome data, the odds risks (OR) and 95% confidence intervals (CIs) were estimated using the Mantel–Haenszel method. For continuous out- come data, standard mean differences and 95% CIs were estimated using the inverse variance weighting. “
“The between-study heterogeneity was tested and quantified using the Cochran Q statistic and the I2 statistic, respectively. An I2 value more than 50% was considered significant heterogeneity. Potential sources of heterogeneity were explored by different sensitivity analyses: comparing fixed-effect versus random-effect models (thus incorporating heterogeneity by using the second method), performing subgroups analyses and influence analyses (calculating pooled estimates omitting one study at a time). “

是否合理

皆為colon polyp (≤10 mm)
皆為CSP vs. HSP
所觀察之結果不完全相同，但相似

Study	Polypectomy method	No. of patients	Patient age mean ± SD	Gender (M/F)	No. of polyps	Tumor size mean ± SD (mm)	Snare device	Submucosal injection available	No. of all adverse events	Macroscopic appearance
										0-I
Kawamura et al[7]	CSP	289	NA	NA	341	5.4 ± 1.4	TCS	no	28	234
(2017, Japan) full text	HSP	289	NA	NA	346	5.4 ± 1.4	TCS	yes	18	234
Ohtsu et al[12]	CSP	149	NA	NA	351	NA	NA	NA	1	NA
(2017, Japan) abstract	EMR	150	NA	NA	322	NA	NA	NA	1	NA
Papastergiou et al[10]	CSP-EMR	77	63.1 ± 10.3	46/31	83	8.2 ± 1.6	TCS	yes	3	38
(2017, Greece)full text	HSP-EMR	78	64.1 ± 10.9	45/33	81	8.3 ± 1.4	TCS	yes	1	34
Suzuki et al[3]	CSP	25	66.9 ± 7.7	19/6	25	5.8 ± 1.7	TCS	no	0	24
(2017, Japan)full text	HSP	27	66.5 ± 9.8	20/7	27	5.6 ± 1.8	TCS	no	0	27
Aizawa et al[21]	CSP	142	NA	NA	362	NA	TCS	NA	3	NA
(2017, Japan)abstract	HSP	135	NA	NA	361	NA	TCS	NA	4	NA
Gómez et al[11]	CSP	NA	NA	NA	21	NA	TCS	yes	0	NA
(2015, USA)full text	HSP	NA	NA	NA	18	NA	TCS	yes	0	NA
Aslan et al[20]	CSP	49	59.5 ± 14.9	32/17	78	7.21 ± 1.4	NA	NA	1	NA
(2013, Japan)abstract	HSP	48	58.3 ± 13.5	36/12	71	7.56 ± 1.45	NA	NA	1	NA
Horiuchi et al[5]	CSP	35	67.0 ± 13	25/10	78	6.5 ± 1.2	TCS	no	4	55
(2014, Japan)full text	HSP	35	67.3 ± 12	24/11	81	6.8 ± 1.3	TCS	no	16	62
Ichise et al[19]	CSP	40	65.1 ± 11	25/15	101	5.7 ± 4	NA	no	1	89
(2011, Japan)full text	HSP	40	65.5 ± 12	28/12	104	5.5 ± 6	NA	no	8	95
Paspatis et al[15](2011,	CSP	208	59.4 ± 13.6	107/101	530	5.3 ± 1.4	TCS	no	19	NA
Greece)full text	HSP	206	61.3 ± 11	125/81	553	5.67 ± 1.3	TCS	some	2	NA
Horiuchi et al[13]	CSP	32	NA	NA	94	NA	NA	NA	1	NA
(2010, Japan)abstract	HSP	32	NA	NA	92	NA	NA	NA	8	NA
Zhang et al[9](2018, China)full text	CSP	179	64.5 ± 7.7	96/83	212	7.4 ± 1.4	TCS	no	5	NA
	HSP	179	65.8 ± 9.4	101/78	203	7.7 ± 1.5	TCS	yes	3	NA

(I)重要性:(6)結果是否全面
(I)重要性:(7)結果是否精準

Efficacy

- Complete resection rate
- Procedural time

Safety

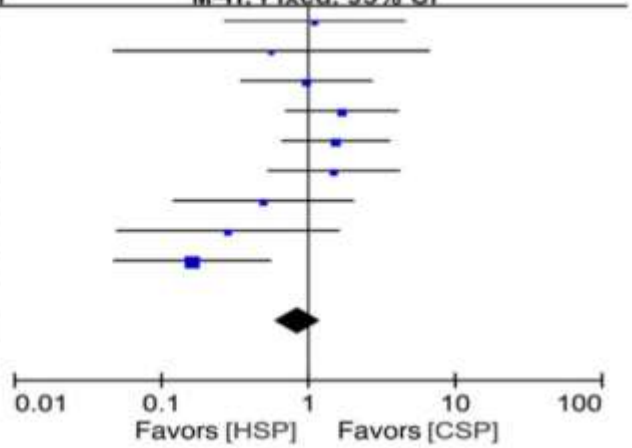
- Adverse events
- Immediate bleeding
- Post-polypectomy bleeding (2 weeks)

Complete resection rate

Study or Subgroup	CSP Events	CSP Total	HSP Events	HSP Total	Weight	Odds Ratio M-H, Fixed, 95% CI
Aslan 2013	74	78	67	71	5.7%	1.10 [0.27, 4.59]
Gómez 2015	19	21	17	18	2.8%	0.56 [0.05, 6.73]
Horiuchi 2014	65	73	67	75	11.6%	0.97 [0.34, 2.74]
Horiuchi A 2010	85	94	78	92	12.0%	1.70 [0.69, 4.14]
Ichise 2011	87	97	85	100	13.8%	1.54 [0.65, 3.61]
Kawamura 2017	335	341	337	346	9.4%	1.49 [0.52, 4.24]
Papastergiou 2017	77	83	78	81	9.1%	0.49 [0.12, 2.04]
Suzuki 2017	17	22	24	26	8.0%	0.28 [0.05, 1.64]
Zhang 2018	194	212	200	203	27.7%	0.16 [0.05, 0.56]
Total (95% CI)		**1021**		**1012**	**100.0%**	**0.86 [0.60, 1.24]**
Total events	953		953			

Heterogeneity: Chi² = 14.48, df = 8 (*P* = 0.07); I^2 = 45%

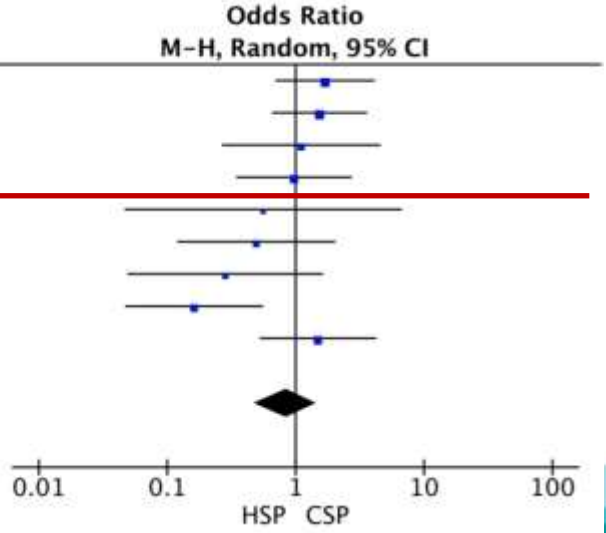
Test for overall effect: Z = 0.82 (*P* = 0.41)



Study or Subgroup	CSP Events	CSP Total	HSP Events	HSP Total	Weight	Odds Ratio M-H, Random, 95% CI	Year
Horuichi 2010	85	94	78	92	15.5%	1.70 [0.69, 4.14]	2010
Ichise 2011	87	97	85	100	16.0%	1.54 [0.65, 3.61]	2011
Aslan 2013	74	78	67	71	9.5%	1.10 [0.27, 4.59]	2013
Horiuchi 2014	65	73	67	75	13.5%	0.97 [0.34, 2.74]	2014
Gomez 2015	19	21	17	18	4.1%	0.56 [0.05, 6.73]	2015
Paspatergiou 2017	77	83	78	81	9.5%	0.49 [0.12, 2.04]	2017
Suzuki 2018	17	22	24	26	7.1%	0.28 [0.05, 1.64]	2018
Zhang 2018	194	212	200	203	11.2%	0.16 [0.05, 0.56]	2018
Kawamura 2018	335	341	337	346	13.5%	1.49 [0.52, 4.24]	2018
Total (95% CI)		**1021**		**1012**	**100.0%**	**0.84 [0.48, 1.45]**	
Total events	953		953				

Heterogeneity: Tau^2 = 0.30; Chi^2 = 14.48, df = 8 (P = 0.07); I^2 = 45%

Test for overall effect: Z = 0.63 (P = 0.53)

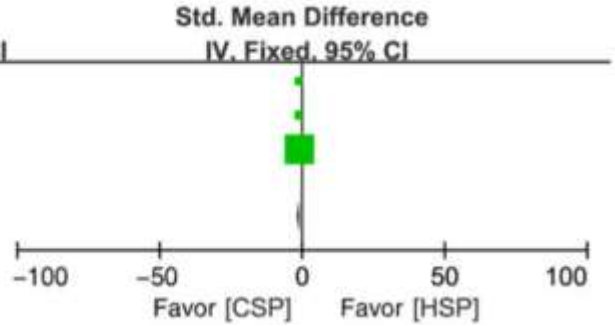


Total colonoscopy time

Study or Subgroup	CSP Mean	CSP SD	CSP Total	HSP Mean	HSP SD	HSP Total	Weight	Std. Mean Difference IV, Fixed, 95% CI
Horiuchi 2014	16	7	35	26	9	35	11.8%	−1.23 [−1.74, −0.71]
Ichise 2011	18	6	40	25	7	40	14.1%	−1.06 [−1.53, −0.59]
Paspatis 2011	23.3	4.8	208	29.6	7.4	206	74.1%	−1.01 [−1.21, −0.80]
Total (95% CI)			**283**			**281**	**100.0%**	**−1.04 [−1.22, −0.87]**

Heterogeneity: Chi² = 0.60, df = 2 (P = 0.74); I^2 = 0%

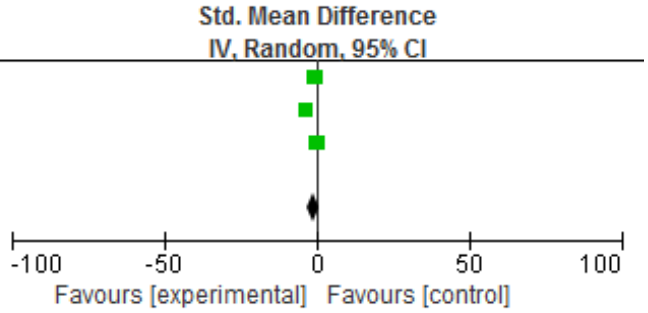
Test for overall effect: Z = 11.60 (P < 0.00001)



Total polypectomy time

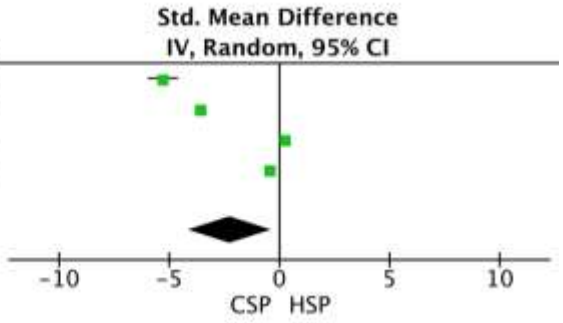
Study or Subgroup	CSP Mean	CSP SD	CSP Total	HSP Mean	HSP SD	HSP Total	Weight	Std. Mean Difference IV, Random, 95% CI
Kawamura 2017	73.6	49.4	341	97.3	60.6	346	33.4%	-0.43 [-0.58, -0.28]
Ohtsu 2017	92.2	9.2	351	144.6	18.9	322	33.3%	-3.57 [-3.81, -3.33]
Zhang 2018	5.5	2.7	212	4.7	3.4	203	33.3%	0.26 [0.07, 0.45]
Total (95% CI)			**904**			**871**	**100.0%**	**-1.24 [-3.22, 0.74]**

Heterogeneity: Tau² = 3.05; Chi² = 634.35, df = 2 (P < 0.00001); I² = 100%
Test for overall effect: Z = 1.23 (P = 0.22)



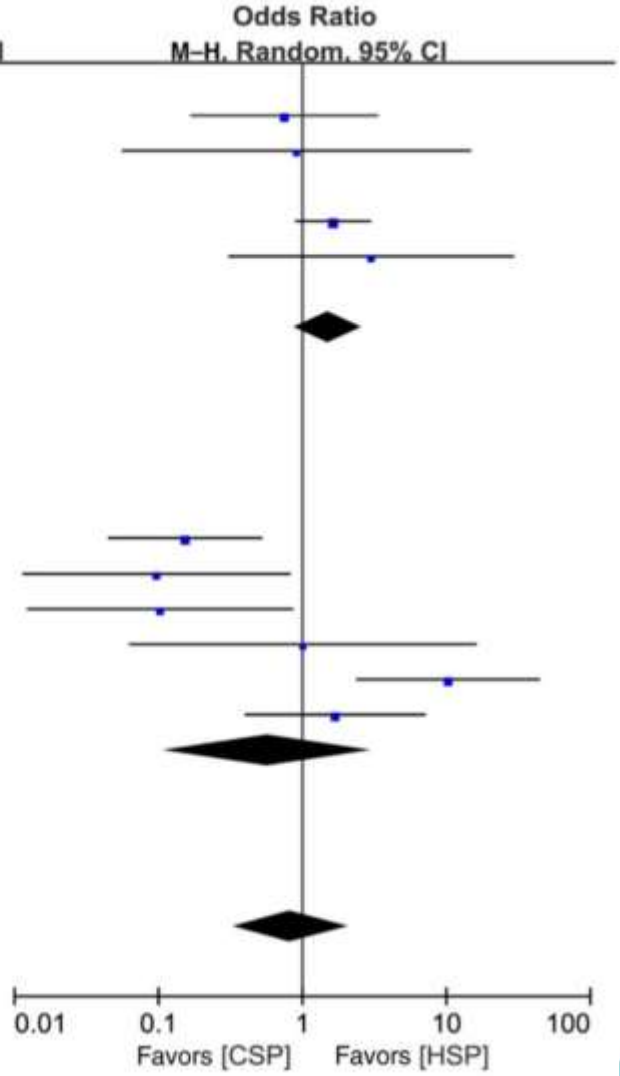
Study or Subgroup	CSP Mean	CSP SD	CSP Total	HSP Mean	HSP SD	HSP Total	Weight	Std. Mean Difference IV, Random, 95% CI	Year
Aslan 2013	25.71	4.3	78	70.28	11.3	71	24.4%	-5.28 [-5.97, -4.59]	2013
Ohtsu 2017	92.2	9.2	351	144.6	18.9	322	25.2%	-3.57 [-3.81, -3.33]	2017
Zhang 2018	330	162	212	282	204	203	25.2%	0.26 [0.07, 0.45]	2018
Kawamura 2018	73.6	49.4	341	97.3	60.6	346	25.2%	-0.43 [-0.58, -0.28]	2018
Total (95% CI)			**982**			**942**	**100.0%**	**-2.23 [-4.10, -0.36]**	

Heterogeneity: Tau² = 3.62; Chi² = 792.13, df = 3 (P < 0.00001); I² = 100%
Test for overall effect: Z = 2.33 (P = 0.02)

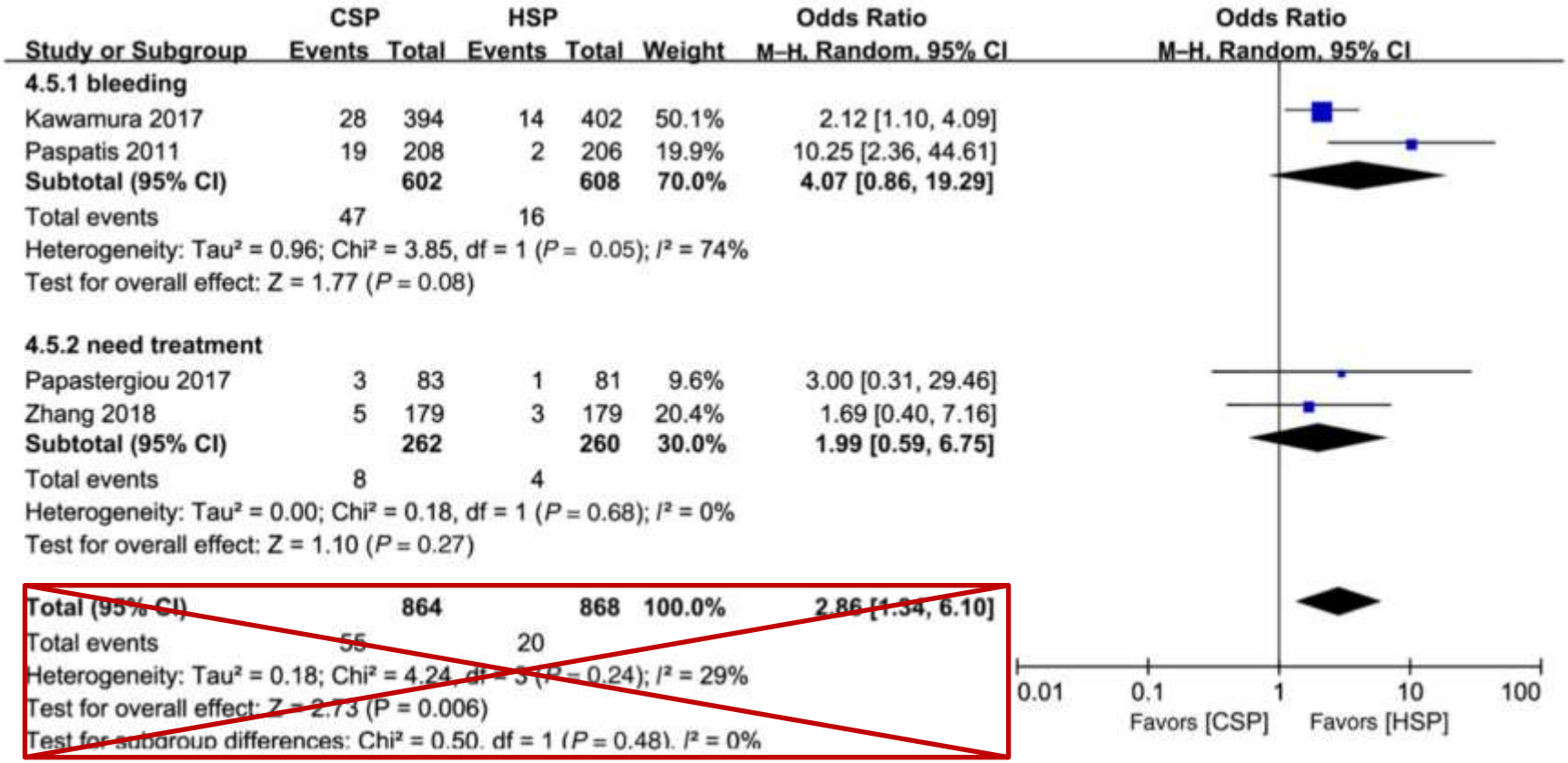


Adverse events

Study or Subgroup	CSP Events	CSP Total	HSP Events	HSP Total	Weight	Odds Ratio M-H, Random, 95% CI
3.2.1 per lesion						
Aizawa M 2017	3	361	4	361	11.2%	0.75 [0.17, 3.37]
Aslan 2013	1	78	1	71	6.5%	0.91 [0.06, 14.81]
Gómez 2015	0	21	0	18		Not estimable
Kawamura 2017	28	394	18	402	14.9%	1.63 [0.89, 3.00]
Papastergiou 2017	3	83	1	81	8.1%	3.00 [0.31, 29.46]
Suzuki 2017	0	25	0	27		Not estimable
Subtotal (95% CI)		**962**		**960**	**40.8%**	**1.49 [0.87, 2.56]**
Total events	35		24			
Heterogeneity: Tau² = 0.00; Chi² = 1.37, df = 3 (*P* = 0.71); *I*² = 0%						
Test for overall effect: Z = 1.47 (*P* = 0.14)						
3.2.2 per patient						
Horiuchi 2014	4	35	16	35	12.4%	0.15 [0.04, 0.53]
Horiuchi A 2010	1	32	8	32	8.6%	0.10 [0.01, 0.83]
Ichise 2011	1	40	8	40	8.7%	0.10 [0.01, 0.86]
Ohtsu 2017	1	149	1	150	6.6%	1.01 [0.06, 16.25]
Paspatis 2011	19	208	2	206	11.4%	10.25 [2.36, 44.61]
Zhang 2018	5	179	3	179	11.5%	1.69 [0.40, 7.16]
Subtotal (95% CI)		**643**		**642**	**59.2%**	**0.57 [0.11, 2.97]**
Total events	31		38			
Heterogeneity: Tau² = 3.32; Chi² = 26.77, df = 5 (*P* < 0.0001); *I*² = 81%						
Test for overall effect: Z = 0.67 (*P* = 0.51)						
Total (95% CI)		**1605**		**1602**	**100.0%**	**0.83 [0.33, 2.11]**
Total events	66		62			
Heterogeneity: Tau² = 1.41; Chi² = 31.28, df = 9 (*P* = 0.0003); *I*² = 71%						
Test for overall effect: Z = 0.39 (P = 0.70)						
Test for subgroup differences: Chi² = 1.18, df = 1 (*P* = 0.28), *I*² = 15.4%						



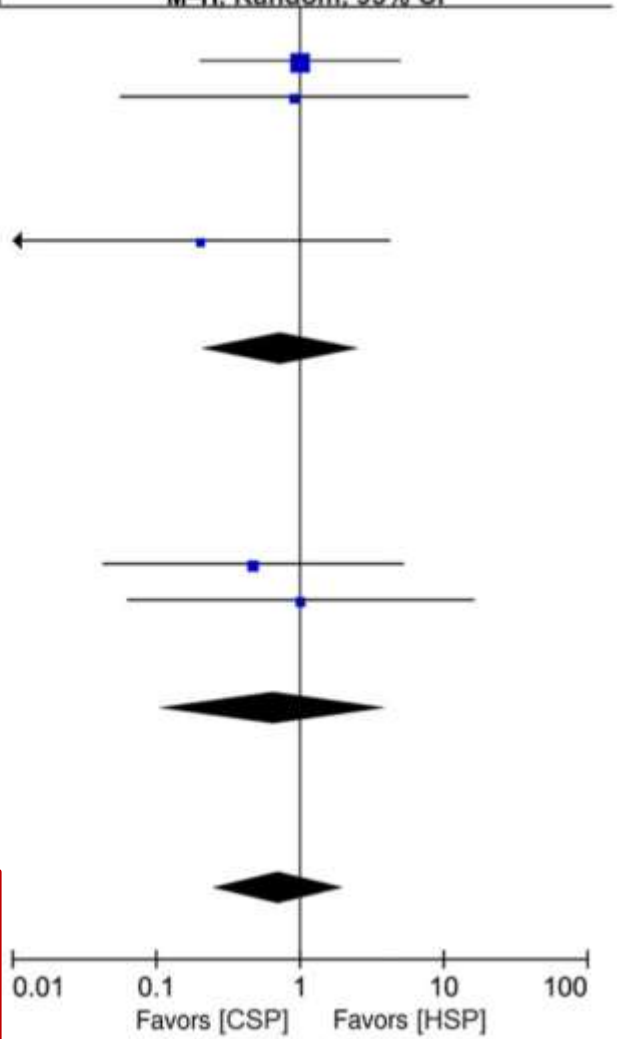
Immediate bleeding



Study or Subgroup	CSP Events	CSP Total	HSP Events	HSP Total	Weight	Odds Ratio M-H, Random, 95% CI
4.5.1 bleeding						
Kawamura 2017	28	394	14	402	50.1%	2.12 [1.10, 4.09]
Paspatis 2011	19	208	2	206	19.9%	10.25 [2.36, 44.61]
Subtotal (95% CI)		**602**		**608**	**70.0%**	**4.07 [0.86, 19.29]**
Total events	47		16			
Heterogeneity: Tau² = 0.96; Chi² = 3.85, df = 1 (*P* = 0.05); *I*² = 74%						
Test for overall effect: Z = 1.77 (*P* = 0.08)						
4.5.2 need treatment						
Papastergiou 2017	3	83	1	81	9.6%	3.00 [0.31, 29.46]
Zhang 2018	5	179	3	179	20.4%	1.69 [0.40, 7.16]
Subtotal (95% CI)		**262**		**260**	**30.0%**	**1.99 [0.59, 6.75]**
Total events	8		4			
Heterogeneity: Tau² = 0.00; Chi² = 0.18, df = 1 (*P* = 0.68); *I*² = 0%						
Test for overall effect: Z = 1.10 (*P* = 0.27)						
Total (95% CI)		**864**		**868**	**100.0%**	**2.86 [1.34, 6.10]**
Total events	55		20			
Heterogeneity: Tau² = 0.18; Chi² = 4.24, df = 3 (*P* = 0.24); *I*² = 29%						
Test for overall effect: Z = 2.73 (P = 0.006)						
Test for subgroup differences: Chi² = 0.50, df = 1 (*P* = 0.48), *I*² = 0%						

Post-polypectomy bleeding

Study or Subgroup	CSP Events	CSP Total	HSP Events	HSP Total	Weight	Odds Ratio M-H, Random, 95% CI
5.2.1 per lesion						
Aizawa M 2017	3	361	3	361	41.9%	1.00 [0.20, 4.99]
Aslan 2013	1	78	1	71	13.9%	0.91 [0.06, 14.81]
Gómez 2015	0	21	0	18		Not estimable
Horiuchi A 2010	0	94	0	92		Not estimable
Ichise 2011	0	101	0	104		Not estimable
Kawamura 2017	0	394	2	402	11.7%	0.20 [0.01, 4.24]
Papastergiou 2017	0	83	0	81		Not estimable
Suzuki 2017	0	25	0	27		Not estimable
Subtotal (95% CI)		**1157**		**1156**	**67.4%**	**0.74 [0.21, 2.64]**
Total events	4		6			
Heterogeneity: Tau² = 0.00; Chi² = 0.87, df = 2 (*P* = 0.65); *I*² = 0%						
Test for overall effect: Z = 0.46 (*P* = 0.65)						
5.2.2 per patient						
Aizawa M 2017	1	142	2	135	18.6%	0.47 [0.04, 5.26]
Ohtsu 2017	1	149	1	150	14.0%	1.01 [0.06, 16.25]
Paspatis 2011	0	208	0	206		Not estimable
Zhang 2018	0	179	0	179		Not estimable
Subtotal (95% CI)		**678**		**670**	**32.6%**	**0.65 [0.11, 4.04]**
Total events	2		3			
Heterogeneity: Tau² = 0.00; Chi² = 0.16, df = 1 (*P* = 0.69); *I*² = 0%						
Test for overall effect: Z = 0.46 (*P* = 0.65)						
Total (95% CI)		**1835**		**1826**	**100.0%**	**0.71 [0.25, 2.02]**
Total events	6		9			
Heterogeneity: Tau² = 0.00; Chi² = 1.04, df = 4 (*P* = 0.90); *I*² = 0%						
Test for overall effect: Z = 0.64 (*P* = 0.52)						
Test for subgroup differences: Chi² = 0.01, df = 1 (*P* = 0.91), *I*² = 0%						



(P)臨床適用性:(8)是否適用當地族群

種族：Japan (x8), China (x1), Greece (x2), USA (x1)

年紀：50-68 year-old

息肉大小：≤10 mm

➔ 結果適用在阿明身上

(P)臨床適用性:(9)結果是否均被考量

Comparison between CSP and HSP
Efficacy: complete resection rate, procedural time **Safety**: Adverse events, immediate bleeding, post-polypectomy bleeding

未被考慮到的結果？
未區分出delayed bleeding

(P)臨床適用性:(10)是否值得運用執行

冷切除 vs. 熱切除：
冷切除： 1. 較快的處理時間 2. 相對較少的延遲性出血 3. 相對較多的立即性出血，及相對較多需立即止血

評讀總結

Validity 效/信度	(1) 問題是否清楚明確	✓
	(2) 是否搜尋適當文獻	⚠
	(3) 是否納入相關研究	✓
	(4) 是否評估文獻品質	✓
	(5) 若有合併，是否合理	✓
Importance 重要性	(6) 結果是否全面	✓
	(7) 結果是否精準	⚠
Practice 臨床適用性	(8) 是否適用當地族群	✓
	(9) 結果是否均被考量	✓
	(10) 是否值得運用執行	✓

DISCUSSION

大腸瘜肉，怎麼切比較好？

- **綠色** 小於一公分的瘜肉，建議病人用冷切除
- **黃色** 待評估
- **紅色** 不同意

- **綠色**(同意)：44人
- **黃色**(待評估)：15人
- **紅色**(不同意)：2人

謝謝聆聽！