

Journal Club

鄭勝偉
2020/1/14

實證醫學

實證醫學**不是**“全新的產物”

從龐大的醫學資料庫中搜尋相關文獻，再經過嚴格評讀及綜合分析後，將所獲取之最佳研究證據(evidence)、臨床經驗(experience)及患者期望(expectation)整合，制定出一套最佳的臨床醫療決策，並可以用來協助醫護人員進行終身學習

Dr. Charles Sidney Burwell (Dean of HMS from 1935 to 1949)

- At an HMS graduation in the late 1940s, he said “...Half of what we have taught you is wrong. Unfortunately, we don't know which half.”



- Dr. Burwell was a cardiologist who specialized in circulation changes associated with heart disease. He is credited with bringing attention to obstructive sleep apnea syndrome. In 1944, while Dr. Burwell was Dean, women entered Harvard Medical School for the first time on an equal basis with men.

實證醫學

統整最佳研究證據，臨床專家意見，病人獨特的價值觀，臨床狀況

臨床專家意見：

- 為應用臨床技術與過去經驗的能力，以便快速鑑別每一位病人獨一無二的健康狀態、診斷、各別風險、可能介入的益處及病人個人的價值觀與期望

病人獨特的價值觀：

- 意即每一位病人，面對臨床的狀況而產生的個人偏好、關注與期望。替病人處理時，應將其納入臨床決策考量中

實證醫學沿革

1972

Archie Cochrane
實證醫學觀念
Based on clinical
epidemiology
concepts

1980s

David Sackett
在加拿大McMaster
University開始推展

1992

英國國家衛生部成立
實證醫學中心
以 Archie Cochrane
之名命名，進而促使
1993年Cochrane
Collaboration的設立

(Iain Chalmers, David Sackett)

精準醫療！

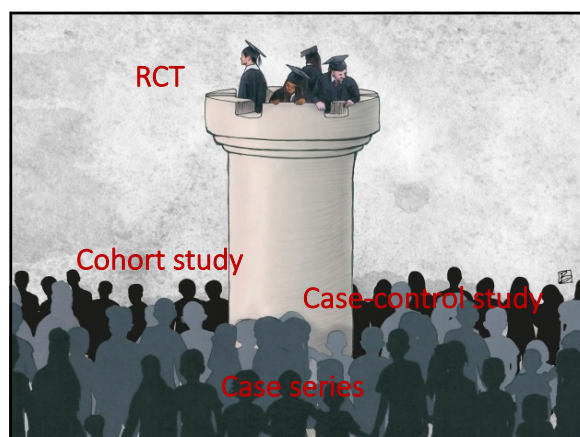
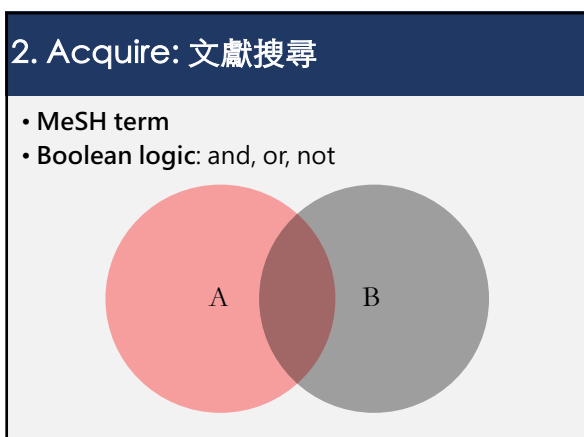
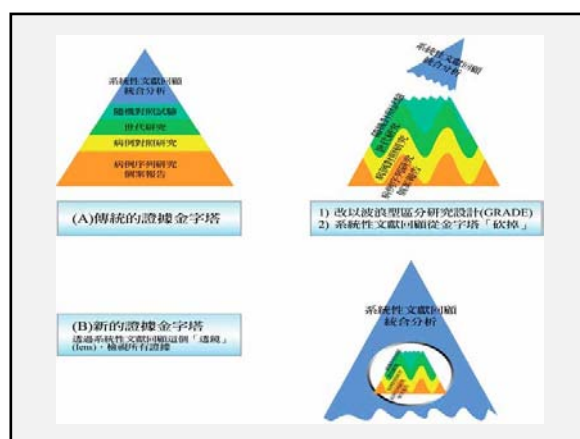
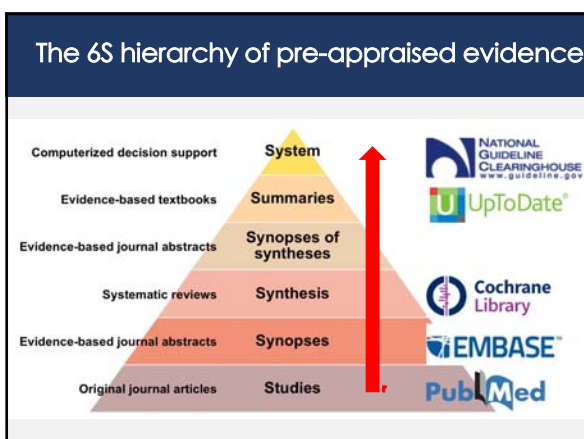
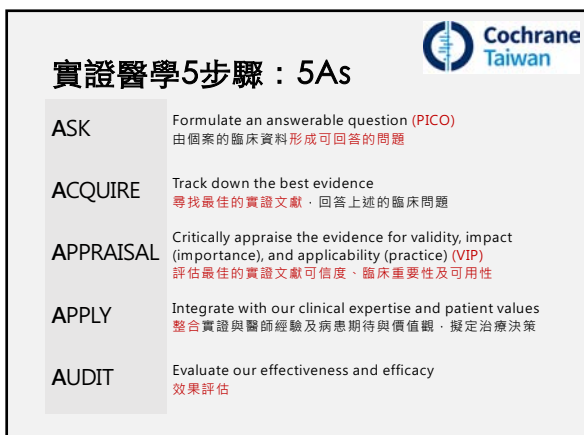


2019/10/13 - 作者：張文龍

棒球 > MLB

Kershaw、Glasnow季後賽大亂流，原因是投球小動作被抓包？

一個投球小動作被抓包 (Tipping Pitches)，有可能因此而輸掉一場比賽、一個系列賽，甚至賠上一整季的努力。剛結束不久的季後賽及國聯分區系列賽，讓洛杉磯Clayton Kershaw、聖路易Tyler Glasnow，會不會是最佳的寫照？



3. Appraisal: 文獻評讀及統合分析

Validity

效度

研究方法的探討

我們能相信這篇文獻嗎？

Bias (selection, measurement, recall...)

Importance/Impact 重要性

研究結果的分析

我們相信它，但這個結論重要嗎？

NNT, NNH, ARR, ARI, RRR...

Chance (p value, power, confident interval)

Practice/Applicability 臨床適用性

如何在臨床上運用

如果我們相信它，這個結論可以應用在我們的病患上嗎？

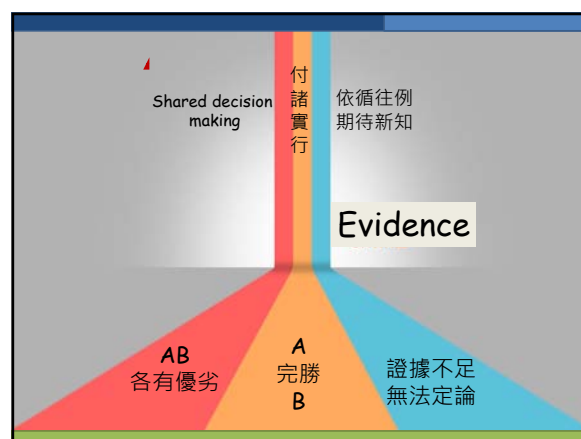
文獻評讀工具

SR/MA	RCT	Non-RCT	Diagnostic	Prognosis
CEBM	CEBM	CEBM	CEBM	CEBM
CASP	CASP	CASP	CASP	
PRISMA	Cochrane RoB 1.0	NOS		
	Cochrane RoB 2.0	Cochrane ROBINS-I		
	CONSORT			
	Jadad scale			

4. Apply: 臨床應用

將臨床專業與病人價值觀相結合

- 我的病人是否與研究中的病人差別很大，以至於無法適用該研究結果？
- 期望我的病人從研究結果中獲得多大的好處？(成本效益分析)
- 還有哪些替代方案？
- 研究結果適用於我的病人？
- 病人的想法為何？



5. Audit: 效果評估

在實證醫學執行過程中，你的表現如何？

- 是否正在記錄問題？
- 是否正在廣大的資源中尋找有用的外部證據？
- 搜尋及評讀證據的速度有多快？
- 有能力將這些證據應用在適當的病人身上嗎？
- 是否依循這些新證據來改變診療習慣？

6. 然後，投稿

Traditional journal

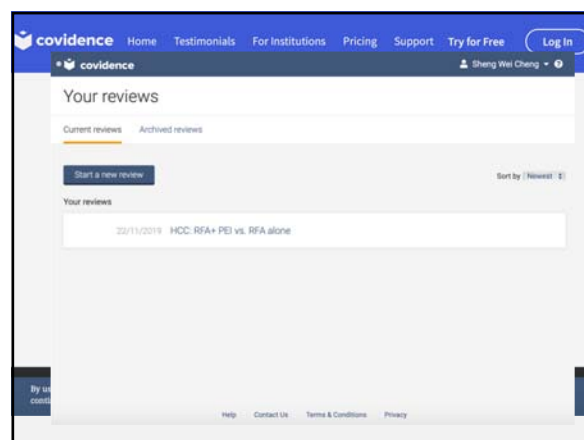
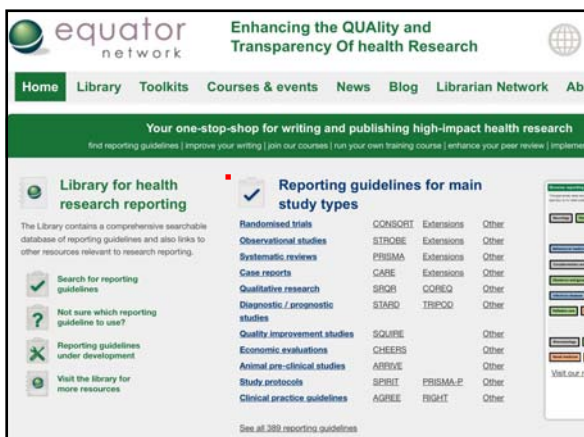
紙本+網路
注重Impact factor，總編輯會挑選文章主題
學會主持，主編負責管控文章走向
喜好刊登hot issue
和主流不同看法的文章比較難發表
通常不接受negative results

Open access (OA)

沒有紙本
收費再刊登
宣稱行政效率比傳統期刊高
傳統期刊下設OA子刊 (例如frontiers, 為neurology子刊)

Mega journal

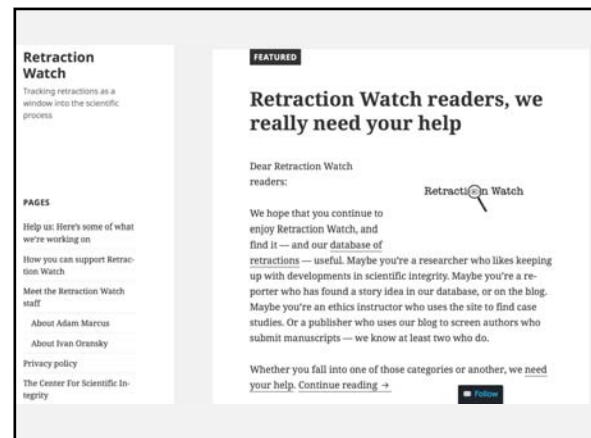
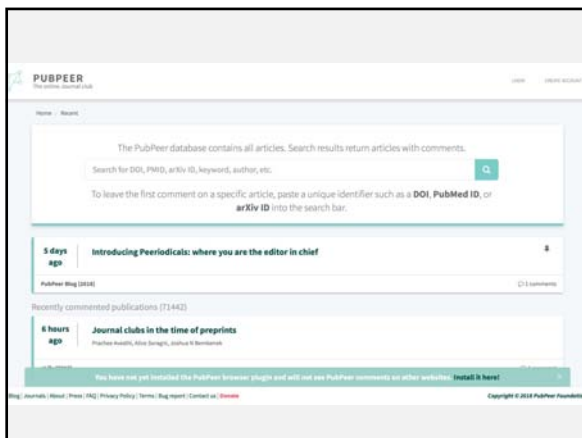
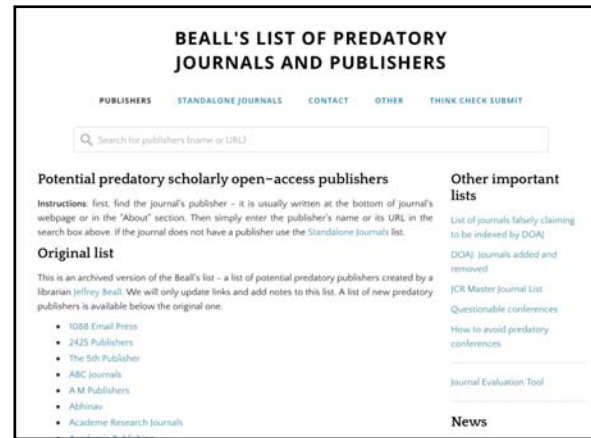
Open access，收費刊登
不限學門，任何科目都收
不注重Impact factor，不限年文章量(論文審查時間可能較久)
文章接受率較傳統期刊高 (30-40% vs. 10-20%)
接受傳統期刊不易接受的新穎想法，非主流意見
收文量大，Impact factor不穩定
不代表學術品質低落
易受到某些學術社群的偏見
如PLOS ONE, scientific report, medicine, oncotarget



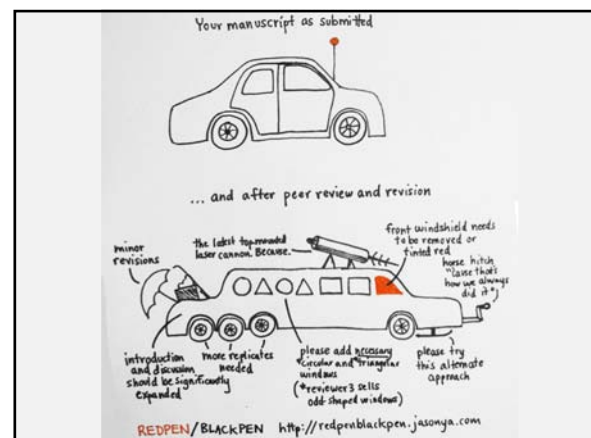
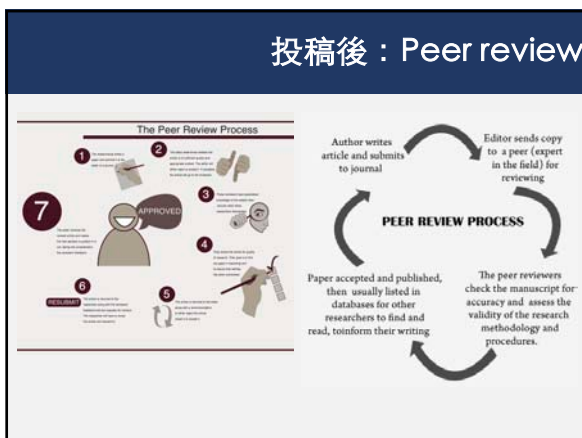
投稿：投到那個期刊？？？

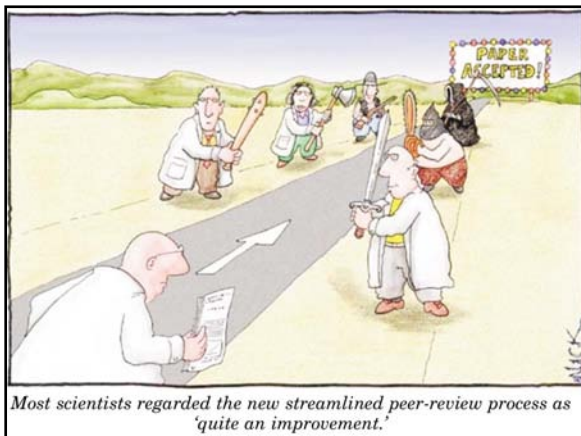


BEALL'S LIST OF PREDATORY JOURNALS AND PUBLISHERS



投稿後：Peer review





Journal Club 我的投稿經驗

1

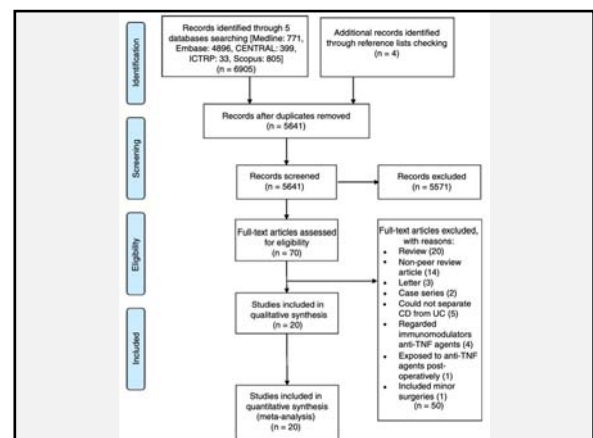
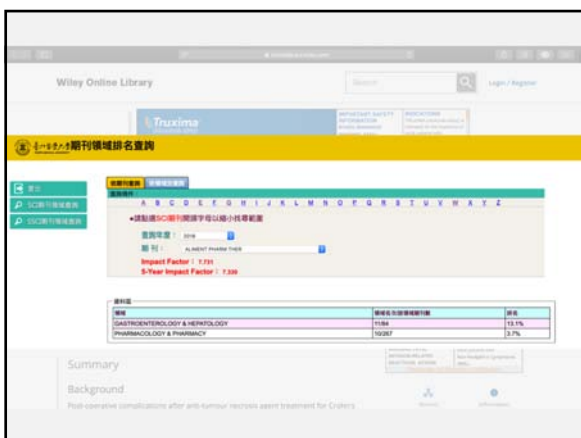
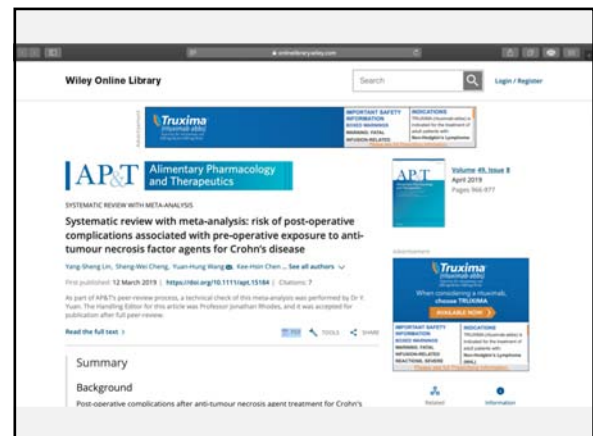


TABLE 2 Newcastle-Ottawa scale for assessing the quality of observational studies

Study	Selection			Outcome			Total score
	Representativeness of exposure	Selection of non-exposed	Ascertainment of exposure	Outcome not present at baseline	Comparability (matched for)	Assessment of outcome	
Colombel 2004	—	—	+	+	—	+	5
Marchal 2004	—	—	+	+	—	+	5
Appau 2008	—	—	+	+	+	+	7
Jindal 2009	—	—	+	+	—	+	5
Nasir 2010	—	—	+	+	—	+	5
Canedo 2011	—	—	+	+	—	+	6
El-Hussara 2012	—	—	+	+	—	+	6
Kasperk 2012	—	—	+	+	—	+	5
Nargird 2013	+	+	+	+	+	+	9
Syed 2013	+	—	+	+	+	+	8
Serradori 2013	—	—	+	+	—	+	6
Uchino 2013	+	—	+	+	+	+	8
Kraus 2013	—	—	+	+	+	+	7
Myslied 2014	+	—	+	+	+	+	7
Lau 2015	+	—	+	+	+	+	8
Yamamoto 2016	+	—	+	+	+	+	8
Kotze 2017	+	—	+	+	+	+	8
Fumery 2017	+	+	+	+	+	+	9
Lightner 2018	—	—	+	+	+	+	7
Brouquet 2018	+	—	+	+	+	+	8

*A maximum of one star for each category in selection and outcome sections.
 *A maximum of two stars for Comparability section.

2

Yia et al. World Journal of Surgical Oncology
<https://doi.org/10.1186/s12957-019-1639-z> (2019) 17:94

World Journal of Surgical Oncology

RESEARCH Open Access

Short-term outcomes of traction-assisted versus conventional endoscopic submucosal dissection for superficial gastrointestinal neoplasms: a systematic review and meta-analysis of randomized controlled studies

Mengting Xia^{1*}, Yunfeng Zhou^{2†}, Jiajie Yu³, Wenwen Chen³, Xiaotao Huang³ and Juan Liao^{4*}

Abstract
Background: In recent years, some traction-assisted approaches have been introduced to facilitate endoscopic submucosal dissection (ESD) procedures by reducing the procedure time and risks related to the procedure. However, the relative advantages of traction-assisted endoscopic submucosal dissection (T-ESD) are still being

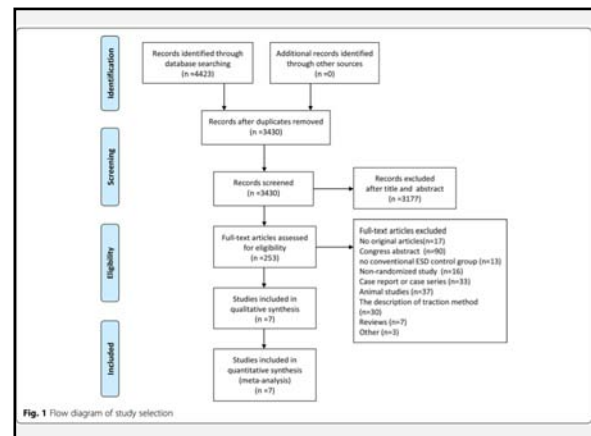


Table 1 characteristics of included studies

Author, year of publication	Country	Patients (n) (T-ESD vs C-ESD)	Age (years) (T-ESD vs C-ESD)	Location of lesions	Inclusion criteria for lesions size (mm) (T-ESD vs C-ESD)	Methods of traction
Ahn et al. [18] 2013	Korea	26/25	66.5 ± 8.8 vs 62.9 ± 8.7	Gastric neoplasm	20.5 ± 7.9 vs 19.4 ± 6.5	Triangular endoscopic clip
Ritsuno et al. [21] 2014	Japan	27/23	66.2 ± 9.6 vs 66.4 ± 8.9	Colorectal tumors	33.5 ± 12.5 vs 37.8 ± 13.1	S-O clip
Koike et al. [19] 2015	Japan	20/20	71 ± 6.3 vs 69.5 ± 9.5	Esophageal carcinoma	24(11–92) vs 27(8–48)	Clip with thread
Mori et al. [20] 2017	Japan	21/22	74 ± 10 vs 72 ± 12	Colorectal tumors	NA	Ring-shaped thread
Yamasaki et al. [22] 2018	Japan	42/42	65(41–84) vs 67(43–86)	Colorectal neoplasm	30(20–55) vs 30(20–60)	Clip-and-thread
Yoshida et al. [23] 2018	Japan	319/316	70.2 ± 9.4 vs 71 ± 8.4	Gastric neoplasms	15.7 ± 10.1 vs 15.5 ± 8.9	Dental floss clip
Ban et al. [24] 2018	Japan	49/55	71.2 ± 6.5 vs 69.0 ± 9.5	Gastric cancers or gastric adenomas	NA	Clip-flap

T-ESD traction-assisted endoscopic submucosal dissection; C-ESD conventional endoscopic submucosal dissection; NA not available
 Age and size of lesions was expressed with (mean ± SD) or median (range)

No Chinese studies?

Table 2 The risk of bias of the included studies

Author	Random sequence generation	Allocation concealment	Blinding of participants and personnel	Blinding of outcome assessment	Incomplete outcome data	Selective reporting	Other bias
Ahn et al. [18] 2013	Low risk	Unclear	Unclear	Unclear	High risk	Low risk	Low risk
Ritsuno et al. [21] 2014	Unclear	Low risk	Unclear	Unclear	Low risk	Low risk	Low risk
Koike et al. [19] 2015	Low risk	Low risk	Unclear	Unclear	Low risk	Low risk	High risk
Mori et al. [20] 2017	Unclear	Low risk	Unclear	Unclear	Low risk	Low risk	Unclear
Yamasaki et al. [22] 2018	Low risk	Unclear	High risk	Unclear	Low risk	Low risk	Unclear
Yoshida et al. [23] 2018	Low risk	High risk	High risk	Unclear	Low risk	Low risk	Unclear
Ban et al. [24] 2018	Low risk	Unclear	Unclear	Unclear	Low risk	Low risk	High risk

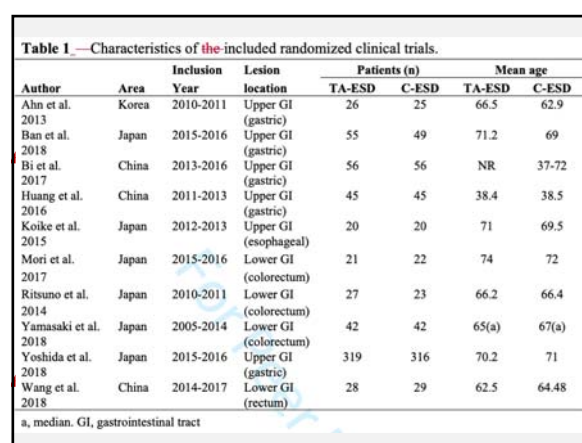
ROB 1.0

The screenshot shows the JCO Clinical Trial Search Portal. The search criteria are:

- Search Term: S-Team Impact Factor
- Filter: S-Team Impact Factor: 1.602
- Results: 100% for Endocrine, 64.6% for Surgery.

 The results table is as follows:

Category	Number of Trials	Percentage
Endocrine	14/20	100%
Surgery	13/20	64.6%



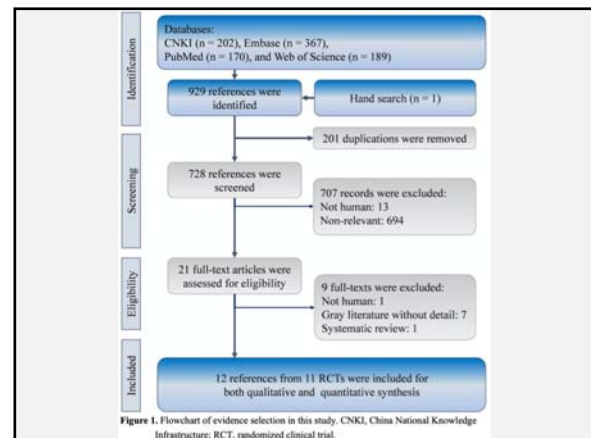
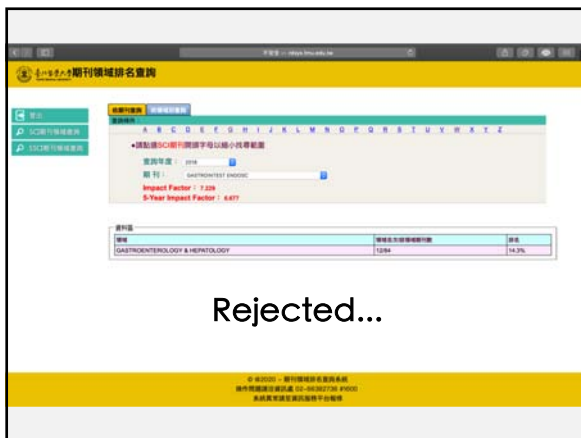


Table 1 Characteristics of included randomized clinical trials.

Author	Area	Inclusion Year	Lesion location	Patients (n)		Mean age	
				TA-ESD	C-ESD	TA-ESD	C-ESD
Ahn et al. 2013	Korea	2010-2011	Upper GI (gastric)	26	25	66.5	62.9
Ilan et al. 2018	Japan	2015-2016	Upper GI (gastric)	55	49	71.2	69
Bi et al. 2017	China	2013-2016	Upper GI (gastric)	56	56	NR	37-72
Huang et al. 2016	China	2011-2013	Upper GI (gastric)	45	45	38.4	38.5
Koike et al. 2015	Japan	2012-2013	Upper GI (esophageal)	20	20	71	69.5
Mori et al. 2017	Japan	2015-2016	Lower GI (colorectal)	21	22	74	72
Rituno et al. 2014	Japan	2010-2011	Lower GI (colorectal)	27	23	66.2	66.4
Yamasaki et al. 2018	Japan	2005-2014	Lower GI (colorectal)	42	42	65(a)	67(a)
Yoshida et al. 2018	Japan	2015-2016	Upper GI (gastric)	319	316	70.2	71
Yoshida et al. 2019	Japan	2015-2016	Upper GI (esophageal)	116	117	70*	72*
Wang et al. 2018	China	2014-2017	Lower GI (rectum)	28	29	62.5	64.48

a, median. GI, gastrointestinal tract.

Article information
 Authors: 4
 Word count: 3494(349)
 Reference: 40(1)
 Table: 2(1)
 Figure: 3(4)
 Supplementary Files: 9

Registry
 PROSPERO: CRD42019136212

Keywords
 Gastrointestinal lesion, endoscopic submucosal dissection, traction-assisted

Level of Evidence
 Level 1 (according to Oxford Centre for Evidence-Based Medicine 2011 Levels of Evidence)

Review Manager 5.3

TA-ESD versus C-ESD for superficial gastrointestinal neoplasms (m5) TA-ESD versus C-ESD for superficial gas

Intervention review

Review information
 Main text
 Tables
 Characteristics of included studies
 Characteristics of excluded studies
 Characteristics of studies awaiting class
 Characteristics of ongoing studies
 Summary of findings tables
 Additional tables
 Studies and references
 Data and analyses
 Figures
 Sources of support
 Feedback
 Appendices

Text of Review

to the technical difficulty of removing them for (3) tumors pathologically classified as undifferentiated (4) ulceration or scarring of the tumor; (5) lack of patient cooperation during the procedure (6) patient refusal.

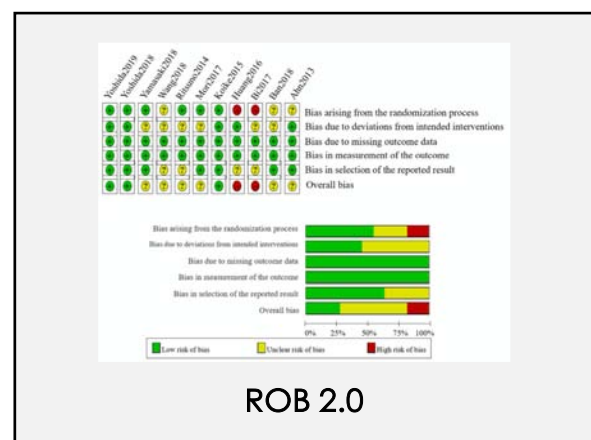
Interventions
 Transnasal endoscope-assisted ESD vs. C-ESD

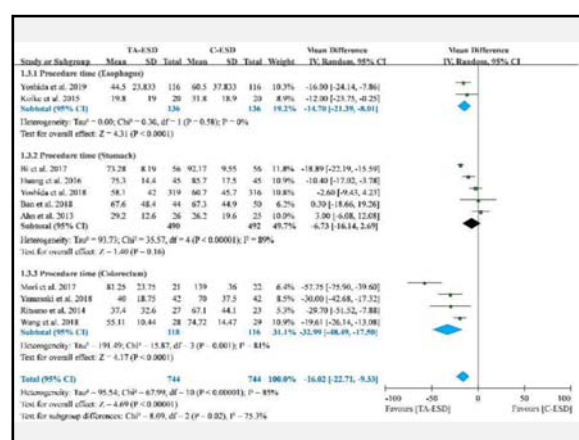
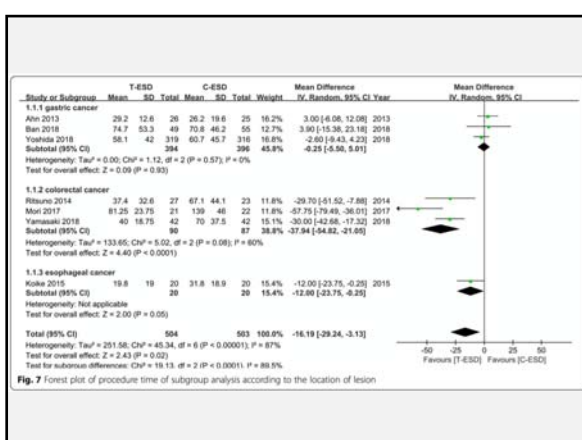
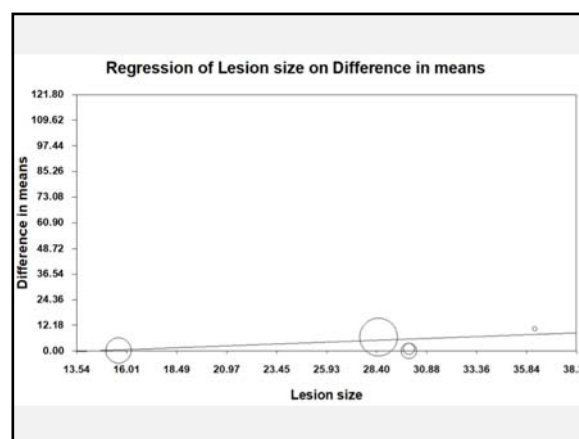
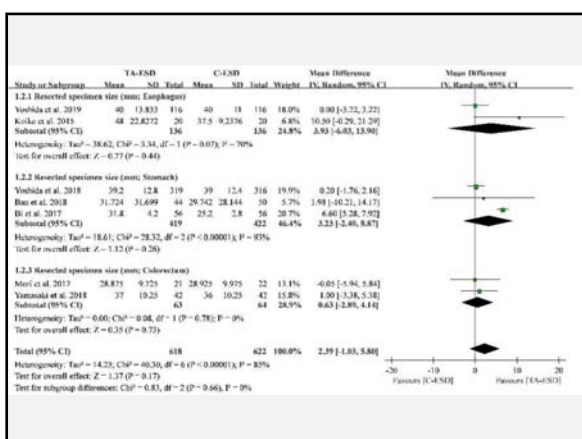
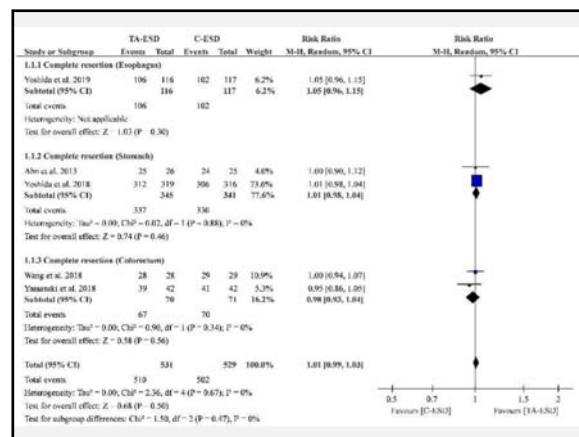
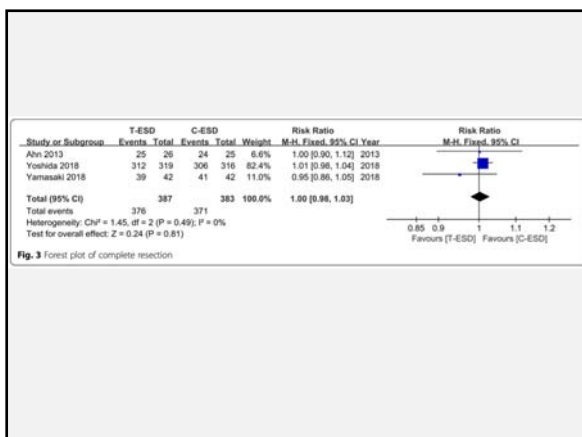
Outcomes
 procedural time, complete resection, complication evaluation

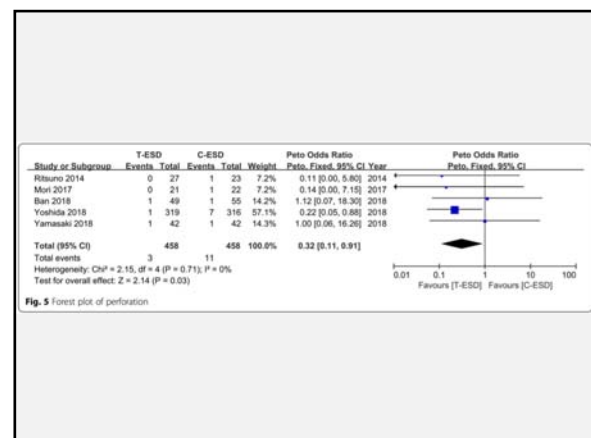
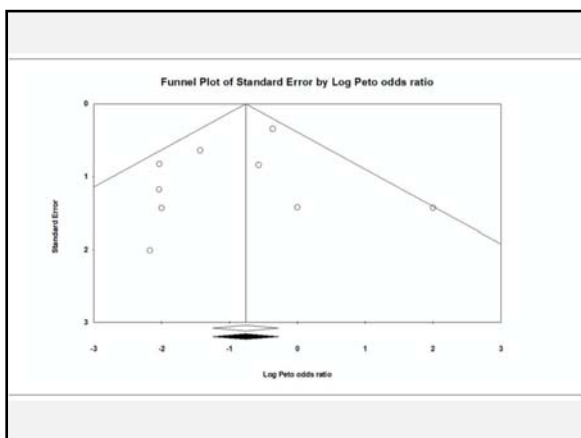
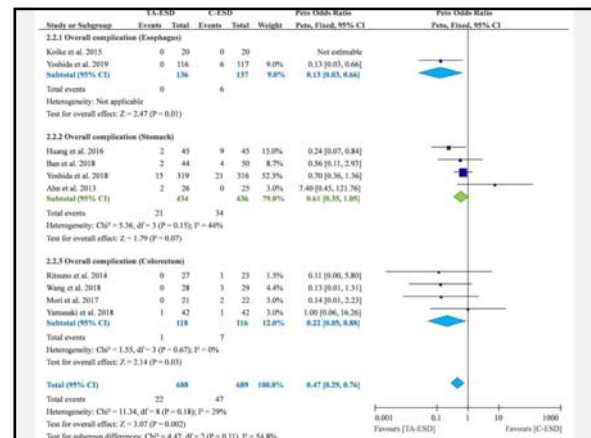
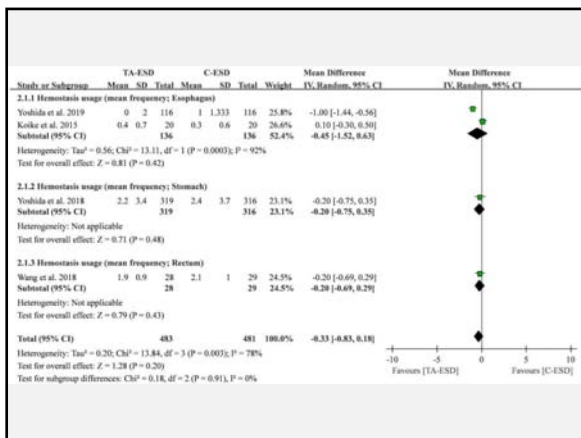
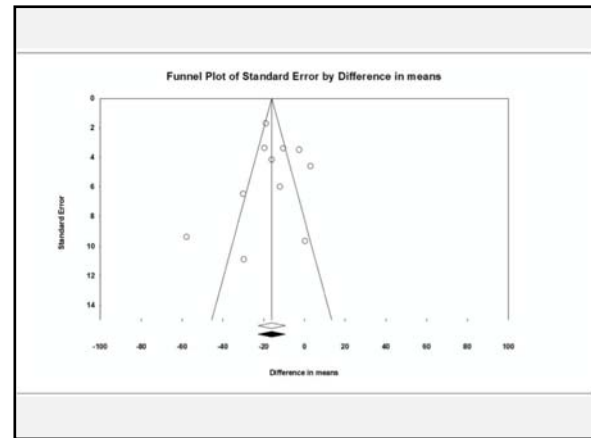
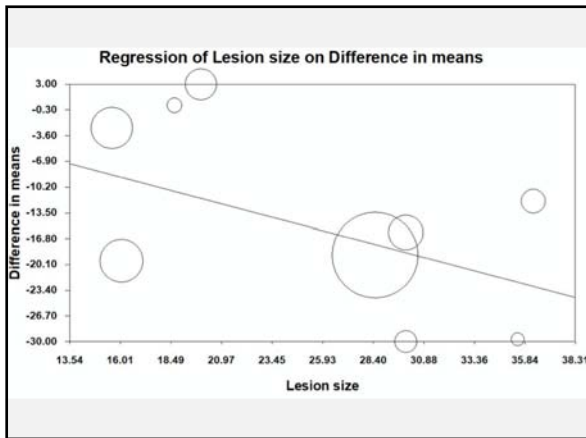
Notes
 1. Korea
 2. All ESD were done by two freshman endoscopists
 3. All patients were sedated (midazolam, pethidine)
 4. Nasal endoscopy, performed by another experienced endoscopist
 5. Time over: if the trainee exceed 150% of total bleeding/perforation --> take over by supervisor

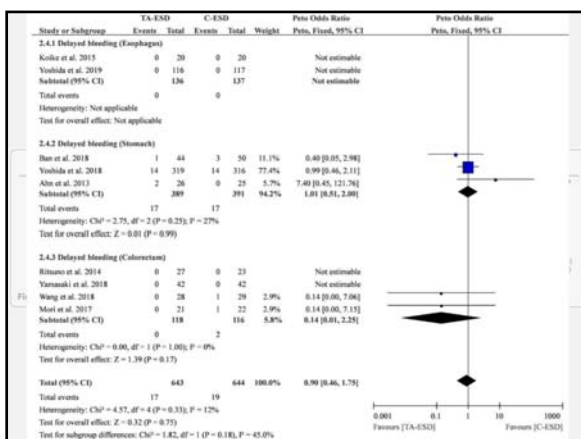
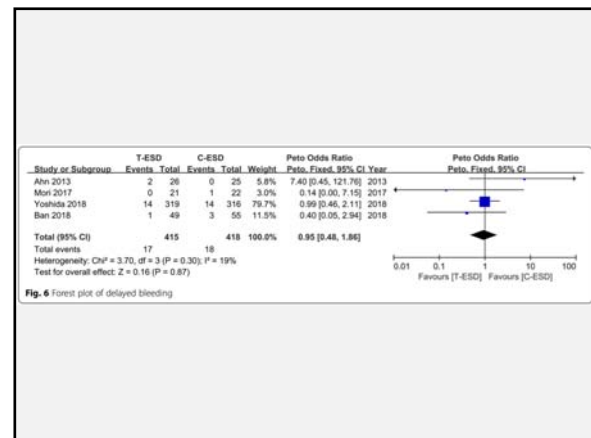
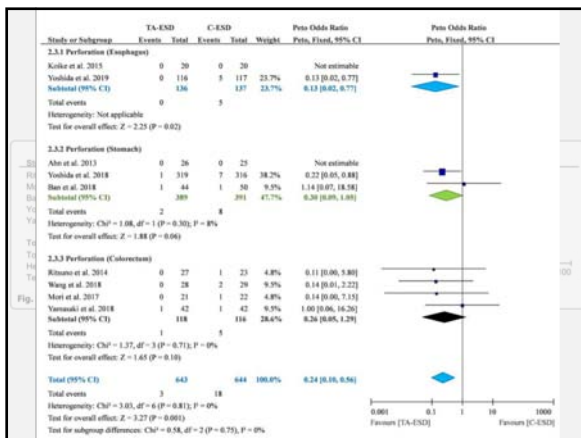
Risk of bias table

Bias	Authors' judgement	Support for judgement
Bias arising from the randomization process	Unclear risk	1. QUOTE: Following enrollment to the transnasal endoscopic routine ESD group (n = 251) randomization (size 4), randomization (size 4), randomization (size 4), randomization (size 4). 2. Did not mention about concealment. 3. No statistical difference in baseline characteristics.
Bias due to deviations from intended interventions	Low risk	









TA-ESD compared to C-ESD for GI tumor

Patient or preoperative GI tumor

Setting: Intervention: TA-ESD Comparison: C-ESD

Outcomes	Anticipated absolute effects ^a (95% CI)	Relative effect ^b (95% CI)	No. of participants (studies)	Confidence of the evidence (GRADE)	Comments
	Risk with TA-ESD	Risk with C-ESD			
Resectability	949 per 1,000 (939 to 959)	958 per 1,000 (939 to 977)	RR 1.01 (0.99 to 1.03)	1060 (5 RCTs)	TA-ESD does not increase resectability.
Resected specimen size (mean (SD) lower (higher))	16.23 mm (1.03 lower (higher))	16.23 mm (1.03 lower (higher))	-	1249 (6 RCTs)	TA-ESD probably does not increase resected specimen size.
Procedure time (mean (SD) lower (higher))	16.02 min (2.23 lower (higher))	16.02 min (2.23 lower (higher))	-	1488 (12 RCTs)	TA-ESD likely results in a reduction in procedure time.
Hemostasis (mean (SD) lower (higher))	16.33 mm (0.33 lower (higher))	16.33 mm (0.33 lower (higher))	-	564 (4 RCTs)	TA-ESD does not reduce hemostasis or age (mean frequency).
Overall complication	48 per 1,000 (23 to 73)	48 per 1,000 (23 to 73)	OR 0.47 (0.29 to 0.76)	1217 (10 RCTs)	TA-ESD probably reduces overall complication.
Perforation	28 per 1,000 (10 to 46)	28 per 1,000 (10 to 46)	OR 0.24 (0.10 to 0.56)	1287 (9 RCTs)	TA-ESD likely reduces perforation.
Delayed postoperative bleeding	27 per 1,000 (14 to 40)	27 per 1,000 (14 to 40)	OR 0.80 (0.45 to 1.41)	1287 (9 RCTs)	TA-ESD may result in a slight reduction in delayed bleeding.

^aThe risk in the intervention group (and its 95% confidence interval) is based on the assumed risk in the comparison group and the relative effect of the intervention (and its 95% CI).

CI: Confidence interval; RR: Risk ratio; OR: Odds ratio

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Manuscripts I Have Co-Authored

STATUS	ID	TITLE	CREATED	SUBMITTED
Accepted (24-Jan-2020)	ENDOS-2019-10374.R2	Efficacy and safety of traction-assisted endoscopic submucosal dissection: A meta-regression of randomized clinical trials	24-Dec-2019	24-Dec-2019
Accepted - in Production	ENDOS-2019-10374.R1	Efficacy and safety of traction-assisted endoscopic submucosal dissection: A meta-regression of randomized clinical trials	24-Dec-2019	24-Dec-2019
Major Revision (24-Dec-2019)	ENDOS-2019-10374.R1	Efficacy and safety of traction-assisted endoscopic submucosal dissection: A meta-regression of randomized clinical trials	24-Dec-2019	24-Dec-2019
A revision has been submitted	ENDOS-2019-10374.R1	Efficacy and safety of traction-assisted endoscopic submucosal dissection: A meta-regression of randomized clinical trials	24-Dec-2019	24-Dec-2019

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Efficacy and safety of traction-assisted endoscopic submucosal dissection: A meta-regression of randomized clinical trials

Running title: Traction-assisted endoscopic submucosal dissection

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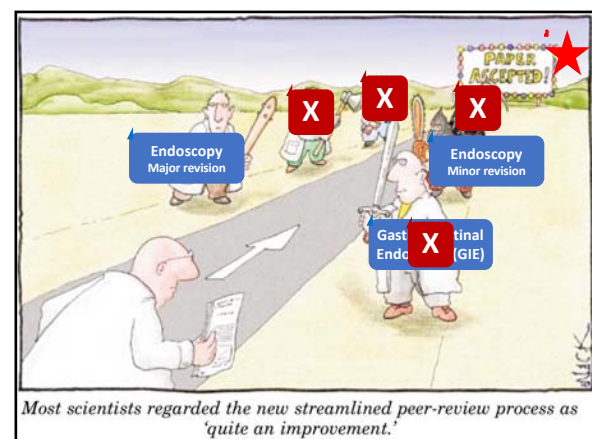
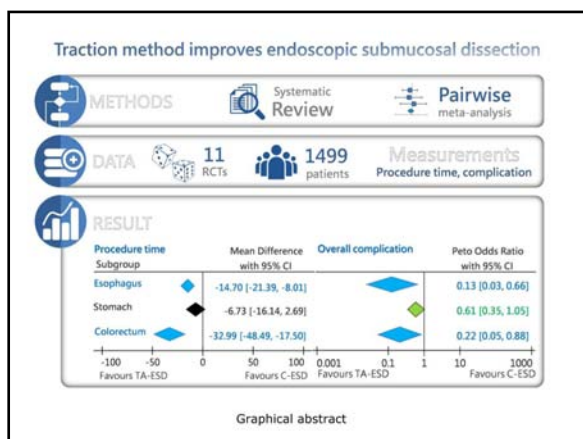
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Efficacy and safety of traction-assisted endoscopic

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Thank you!