痔瘡病人接受雷射消融手術，是否能有效減輕其術後疼痛、出血問題

(圖片取自:https://www.sohu.com/a/452194722_120808387)

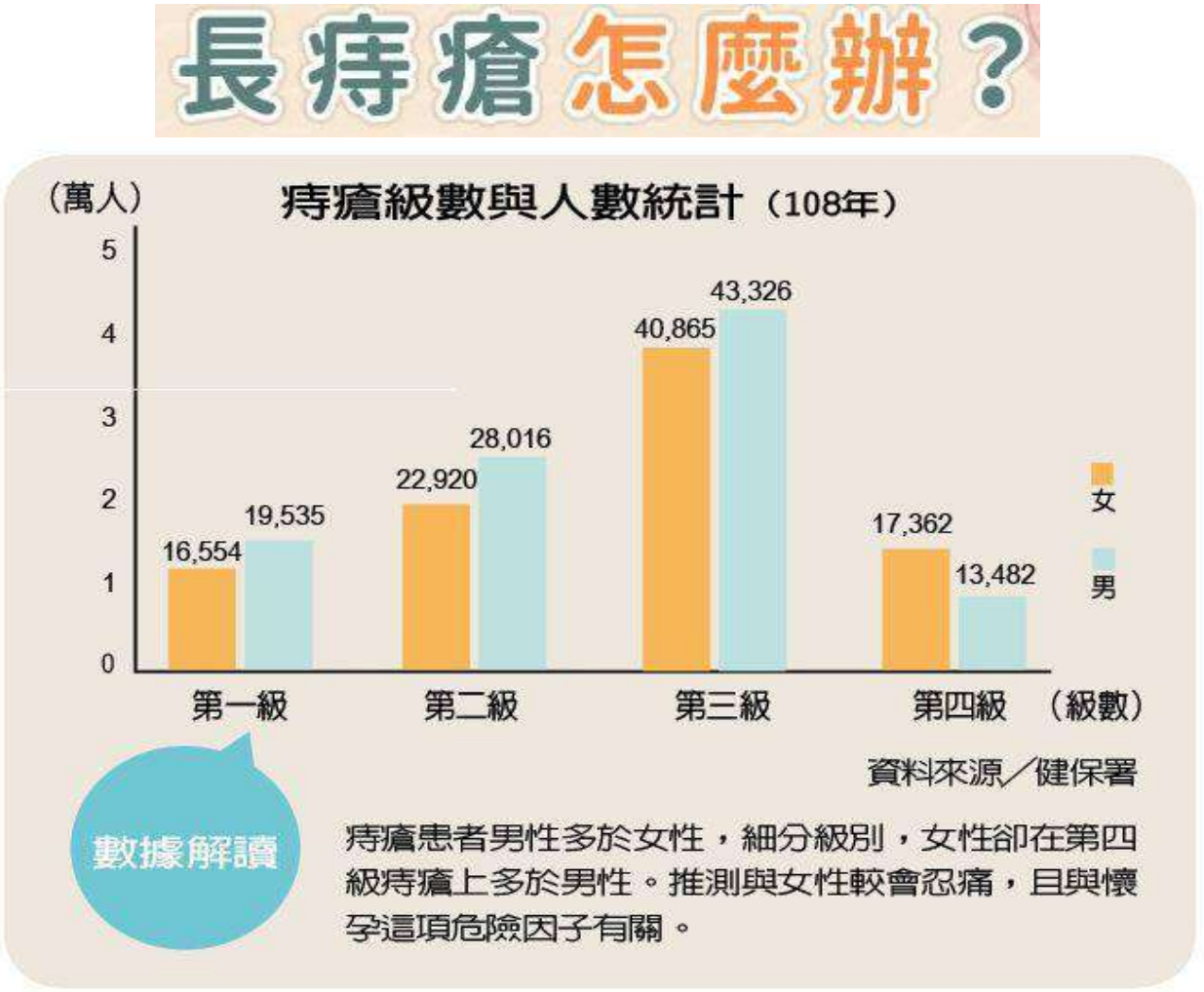
報告者：8B張韶庭

報告日期： 111/01/25

簡介-流行病學

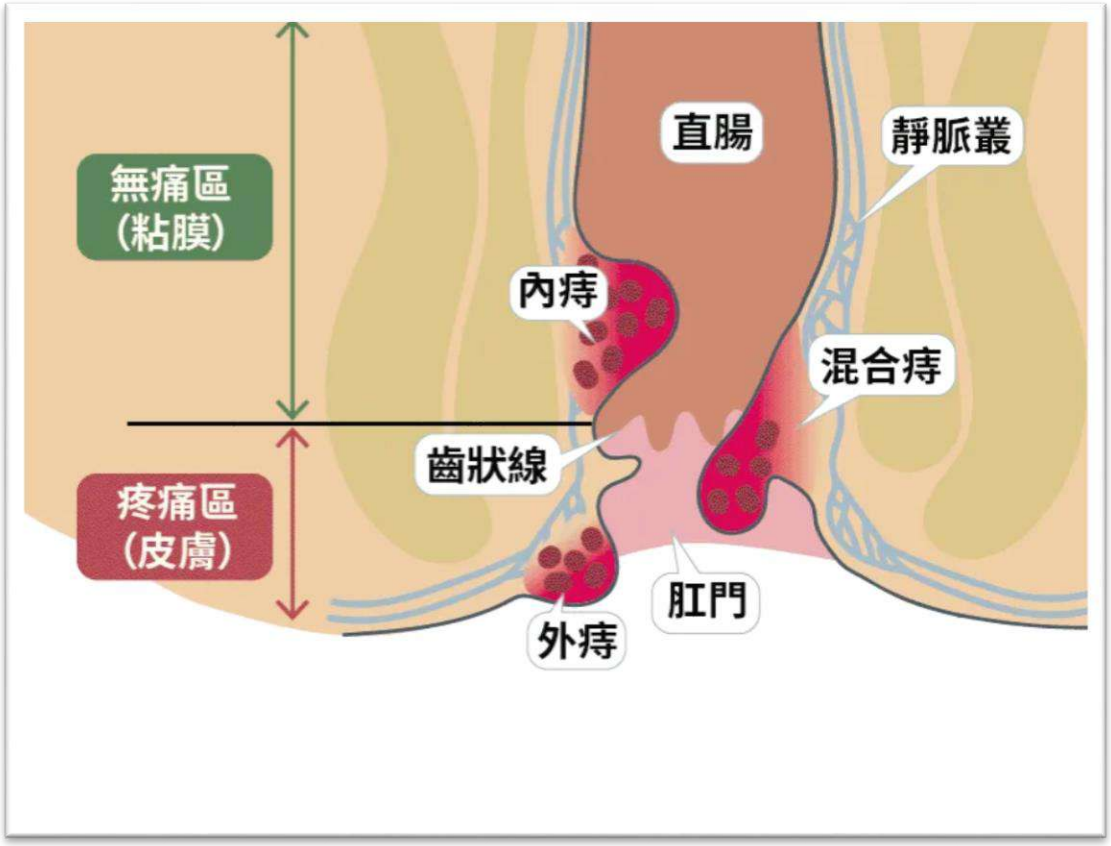
- **痔瘡是許多人有苦說不出的痛**，盛行率高到有「十人九痔」之說。
- 以健保資料庫顯示，於108年因痔瘡就醫患者**多達39萬餘人。**
- 診斷為痔瘡的患者，近三年**以第三級為最多**，不論是哪一個級別的痔瘡，患者年齡都集中在50歲到59歲，並未因不同級別而有差異(健保署，2019)。

簡介-流行病學



(圖片取自 https://blog.xuite.net/dhsy0303/twblog/589167639)

簡介-成因



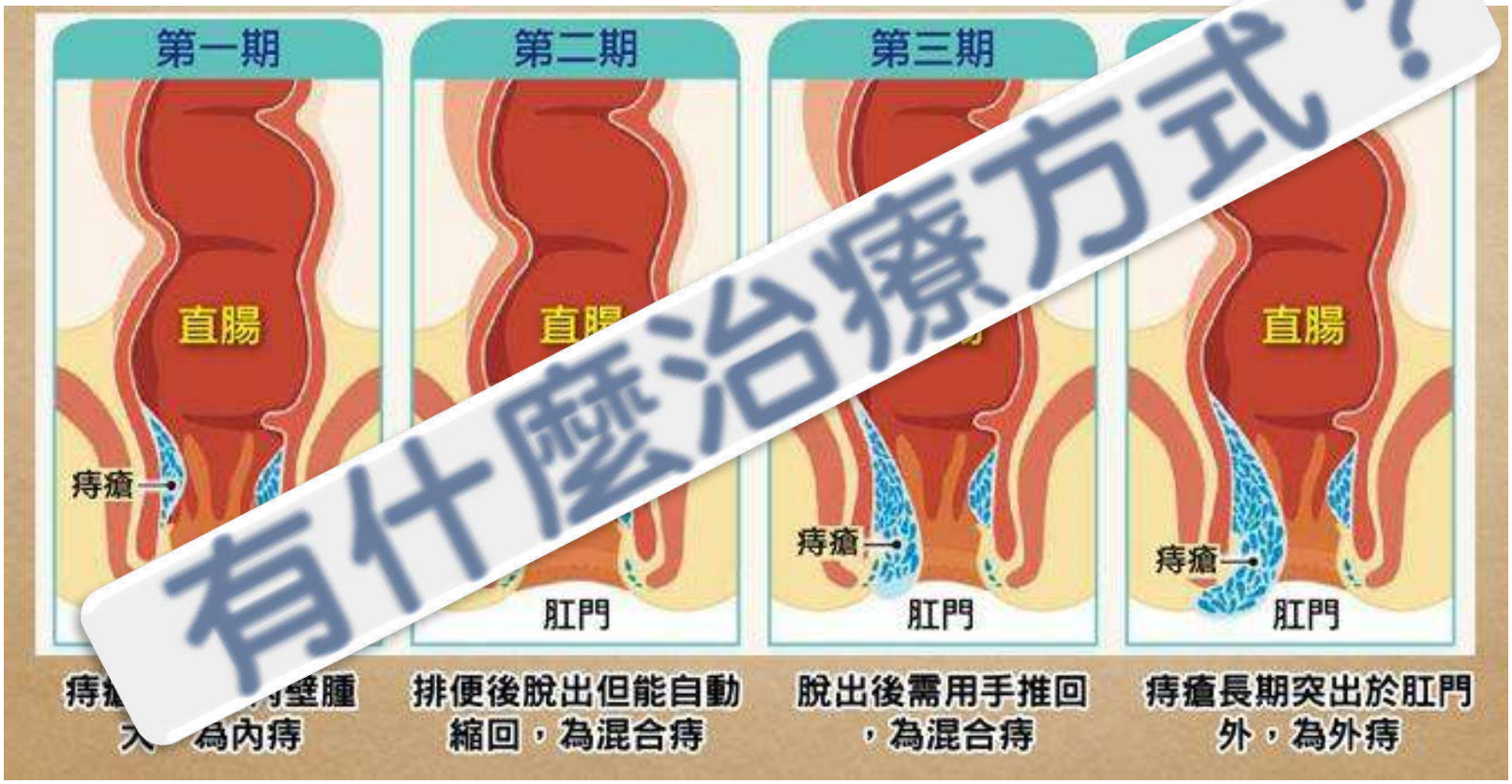
當肛門墊內部異常腫脹或壓力改變導致血管充血及肌肉纖維破裂，**靜脈回流減少等等易導致痔瘡。**

(圖片取自https://www.ihealth.com.tw/article/%E7%97%94%E7%98%A1/)

簡介-症狀

(圖片取自http://www.havemary.com/article.php?id=5423)

簡介-分期與治療



有什麼治療方式？

(圖片取自https://health.tvbs.com.tw/review/324383)

簡介-保守治療


坐浴

- **飲食控制**：多吃蔬菜水果，多喝水，避免便秘。
- **藥物治療**：

1. 外用藥：痔瘡藥膏、塞劑，含微量類固醇成分，有消腫、止痛、止血之效果。

2. 口服藥：軟便藥及消炎止痛藥，以症狀治療為主。

- **溫水坐浴**：可降低肛門括約肌壓力、促進局部血液循環，有消腫、止痛之效果；亦為痔瘡手術後之病人重要的傷口護理方式。

(盧延榕，2018)

(圖片取自 https://kknews.cc/health/x6alp89.html)

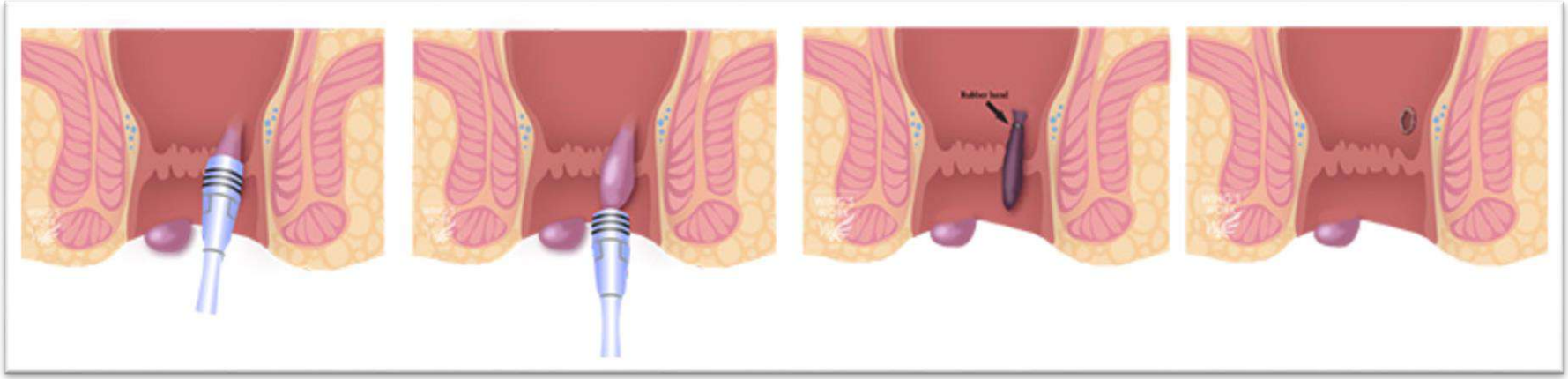
手術治療介紹(傳統)

治療方式	適用範圍	治療特色	本院是否有此治療
橡皮圈結紮	第一～三級內痔	● 快速方便、門診處理、免住院及少有嚴重併發症 ● **無法治療**有接受抗凝血藥物、凝血功能異常或門靜脈高壓病史的患者	✓
硬化劑注射	第一～二級內痔	● 術後痔瘡復發機會較高 ● **可用於治療**有接受過抗凝血藥物、凝血功能異常或門靜脈高壓病史的患者	X
紅外線熱凝術	第一～二級內痔	● **少有併發症的產生**，但復發機率比橡皮圈結紮還高	X
環狀切除術	較嚴重的內痔	● 近年較新穎的術式，**但無法用來治療外痔**	✓
傳統痔瘡切除術	較嚴重的外痔 & 第三～四級內痔	● 術後復發機率較低，但**術後併發症機會＆疼痛程度較高**	✓

(Danny Jacobs, M.D., M.P.H. Hemorrhoids. N Engl J Med 2014;371:944-51.)

簡介-雷射痔瘡消融手術 (1)

- 雷射痔瘡消融手術是透過拋棄式的醫療探針刺入痔瘡後，利用雷射980nm、1470nm波長能量，消融痔瘡內靜脈，截斷痔瘡患部的血液供應，使痔瘡萎縮壞死達到治療的目的。



- 在手術後僅有三至四個約0.2公分的傷口，因此能大幅降低疼痛情形，大多數病患隔天就能返家正常生活工作。因傷口微小、恢復速度快，所以也不容易出現感染或併發症，但此手術通常適用於第二度與第三度的痔瘡，若是病況較複雜嚴重或痔瘡範圍大比較不適合。(張申吉，2021)

(圖片取自https://www.dianthus.com.tw/mc/ugC_Bussines_Detail.asp?hidBussinesID=78)

簡介-雷射痔瘡消融手術 (2)

優

1. 出血量較少
2. 手術時間較傳統來說比較短
3. 傷口小、容易照顧
4. 減少術後疼痛程度

劣

1. 手術與耗材需自費 (約5萬)
2. 複雜性痔瘡不適用

臨床現況 (1)

- 國外約從2014～2015年開始實行雷射痔瘡消融手術。
- 國內約從2018～2019年開始實行雷射痔瘡消融手術。
- 目前本院大腸直腸外科已有兩位主治醫師開始使用雷射手術於痔瘡個案。
- 本院第一台雷射痔瘡消融手術為2021年9月。
- 爾後共計48台雷射手術。

(資料統計至2022年1月22日)

臨床現況 (2)

痔瘡病人考慮是否使用雷射手術?

- 可以減少疼痛？
- 癒合效果有差異嗎？
- 能減少住院天數、盡快返回職場工作？
- 網路上說好很快是真的嗎?傷口不易感染？

(圖片取自https://www.everypixel.com/q/conversation-the-doctor)

Appraisal sheets (FAITH)

Clinical Outcomes and Effectiveness of Laser Treatment for Hemorrhoids: A Systematic Review

Kasun Lakmal [1], Oshan Basnayake [1], Umesh Jayarajah [1], Dharmabandhu N Samarasekera [2]

Affiliations + expand

PMID: 33469736 DOI: 10.1007/s00268-020-05923-2

IF:3.352

World Journal of Surgery
World J Surg (2021) 45:1222–1236
https://doi.org/10.1007/s00268-020-05923-2

- Appraisal Tool
  - 步驟1：研究探討的問題為何 (PICO)
  - 步驟2：研究的品質如何 (內在效度)
  - 步驟3：研究結果之意義為何 (效益)

系統性文獻回顧探討的問題(PICO)

研究族群／問題 (Population/ Problem)：

- Adults with grade 2 and 3 hemorrhoids.

介入措施 (Intervention)：

- Laser treatment.

比較 (Comparison)：

- Non Laser treatment.

結果 (Outcomes)：

- Postoperative pain.
- Intra- and postoperative bleeding.

Appraisal sheets (FAITH)

☐ Appraisal Tool

☐步驟 1：研究探討的問題為何 (PICO)

☐步驟 2：研究的品質如何 (內在效度)

☐步驟 3：研究結果之意義為何 (效益)

FAITH-研究是否找到所有的相關證據 (1)

良好的文獻搜尋至少應包括二個主要的資料庫(如:Medline, Cochrane 考科藍實證醫學資料庫, EMBASE 等),並且加上文獻引用檢索(參考文獻中相關研究、Web of Science, Scopus 或 Google Scholar)、試驗登錄資料等。文獻搜尋應不只限於英文,並且應同時使用 MeSH 字串及一般檢索詞彙(text words)

Search strategy

Articles published between January 2009 and May 2020 in PubMed, MEDLINE and Google Scholar were searched using the search terms 'Hemorrhoid'(MeSH major topic), 'Laser', 'Coagulation', 'Surgery'(MeSH terms), 'Photocoagulation', 'Hemorrhoidoplasty', 'Treatment' and 'Procedure'(general terms) in the title or abstract fields. Search was limited only to human studies and to articles published in English. The reference lists provided in full papers were also used to identify additional papers for review. The last search date were 31st May 2020. Both experimental and observational studies that described the outcome of laser treatment for hemorrhoids were included in the qualitative analysis.

使用的資料庫

搜尋年限

搜尋詞彙
(搜尋策略)

不限語言
只限於英文

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FAITH-研究是否找到所有的相關證據 (2)

- 搜尋資料庫：
  - PubMed, MEDLINE and Google Scholar
- 搜尋詞彙(搜尋策略)
  - ‘Hemorrhoid’(MeSH major topic), ‘Laser’, ‘Coagulation’, ‘Surgery’(MeSH terms), ‘Photocoagulation’, ‘Hemorrhoidoplasty’, ‘Treatment’ and ‘Procedure’(general terms) in the title or abstract fields.
- 搜尋年限：January 2009 to May 2020
- 只限於英語

良好的文獻搜尋至少應包括二個主要的資料庫(如：Medline, Cochrane 考科藍實證醫學資料庫, EMBASE等)，並且加上文獻引用檢索(參考文獻中相關研究、Web of Science, Scopus或Google Scholar)、試驗登錄資料等。文獻搜尋應不只限於英文，並且應同時使用 MeSH字串及一般檢索詞彙(text words)。

評讀結果：

☐是

■否

☐不確定

PRISMA

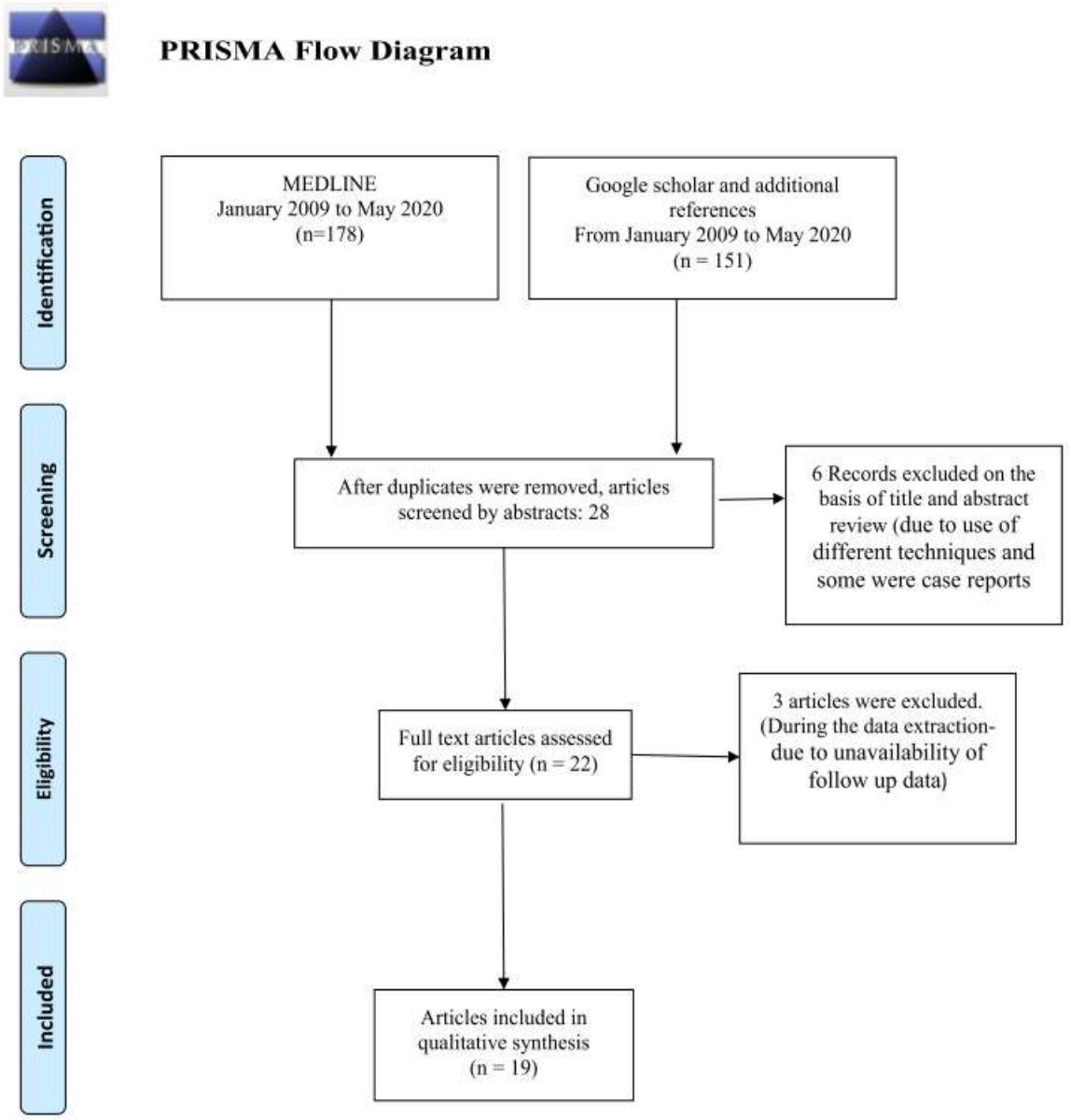

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Fig. 1 PRISMA flowchart

FAITH-文獻是否經過嚴格評讀 (1)

- 應根據不同臨床問題的文章類型，選擇適合的評讀工具，並說明每篇研究的品質(如針對治療型的臨床問題，選用隨機分配、盲法、及完整追蹤的研究類型)。

Initial screening for eligibility was performed by two investigators based on the titles, abstracts and keywords of citations from electronic databases. Thereafter, full texts of all relevant records were assessed based on the inclusion criteria. Studies describing the outcomes of laser for hemorrhoidoplasty and hemorrhoidal dearterialization using 980 nm and/or 1470 nm laser diodes as energy source, in elective patients more than 18 years of age with a minimum follow-up period of 3 months were included in this study. Studies that described surgical excision procedures such as Milligan-Morgan's and Ferguson's techniques using laser were not considered in this review. Studies that described emergency procedures for painful or thrombosed hemorrhoids, concurrent anorectal diseases (fissures, fistulas, abscesses) and combined treatment modalities with laser were excluded to minimize bias. Case reports were not included. Eligible studies were then finalized by consensus between two investigators. In doubtful situations, the opinion of senior investigators was sought.

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FAITH-文獻是否經過嚴格評讀 (2)

- 應根據不同臨床問題的文章類型，選擇適合的評讀工具，並說明每篇研究的品質(如針對治療型的臨床問題，選用隨機分配、盲法、及完整追蹤的研究類型)。

評讀結果：
■是
□否
□不確定

Data from individual studies were tabulated including study design, basic demographical and clinical parameters of patients, patterns of hemorrhoid, details about the procedure (types of anesthesia, laser diode type, duration of the surgery), postoperative short-term and long-term outcome and complications. Finally, qualitative analysis was performed with the available data. The outcomes were described and compared between different laser techniques. A meta-analysis could not be performed due to the heterogeneity in the study methodology, treatment option and description of outcomes. The risk and bias assessment of eligible studies was performed using a modified version of the Downs and Black checklist. Each paper was graded as "excellent" (24–28 points), "good" (19–23 points), "fair" (14–18 points) or "poor" (< 14 points) [13] (Table S1).

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Downs and Black checklist

Excellent (24–28 points) good(19–23 points)
fair(14–18 points) poor(< 14 points)
總分為28分

	REPORTING	Yes	No
Q1	Hypothesis/aim/objective clearly described	1	0
Q2	Main outcomes in Introduction or Methods	1	0
Q3	Patient characteristics clearly described	1	0
Q4	Interventions of interest clearly described	1	0
Q5	Principal confounders clearly described	2	0
Q6	Main findings clearly described	1	0
Q7	Estimates of random variability provided for main outcomes	1	0
Q8	All adverse events of intervention reported	1	0
Q9	Characteristics of patients lost to follow-up described	1	0
Q10	Probability values reported for main outcomes	1	0
	EXTERNAL VALIDITY	**Yes**	**No**
Q11	Subjects asked to participate were representative of source population	1	0
Q12	Subjects prepared to participate were representative of source population	1	0
Q13	Location and delivery of study treatment was representative of source population	1	0

	INTERNAL VALIDITY – BIAS & CONFOUNDING	Yes	No
Q14	Study participants blinded to treatment	1	0
Q15	Blinded outcome assessment	1	0
Q16	Blinded outcome assessment	1	0
Q17	Analyses adjust for differing lengths of follow-up	1	0
Q18	Appropriate statistical tests performed	1	0
Q19	Compliance with interventions was reliable	1	0
Q20	Outcome measures were reliable and valid	1	0
Q21	All participants recruited from the same source population	1	0
Q22	All participants recruited over the same time period	1	0
Q23	Participants randomized to treatment(s)	1	0
Q24	Allocation of treatment concealed from investigators and participants	1	0
Q25	Adequate adjustment for confounding	1	0
Q26	Losses to follow-up taken into account	1	0
	POWER	**Yes**	**No**
Q27	Sufficient power to detect treatment effect at significance level of 0.05	1	0

FAITH-文獻是否只納入良好效度的文章?

- 僅進行文獻判讀是不足夠，**系統性文獻回顧只納入至少要有一項研究結果是極小偏誤的試驗。**

評讀結果：
☐是
■否
☐不確定

Results

Initial search revealed 289 studies. After excluding the duplicates and non-relevant articles, a total of 28 original studies were found (Fig. 1). Six studies were excluded during the abstract review due to use of different laser generation sources (other than diode laser) and uncommon wavelengths by the modern standards. Of the remaining 22 studies, three were excluded during data extraction due to unavailability of follow-up data. Finally, data from 19 studies including 1937 patients who underwent laser treatment for hemorrhoids were analyzed. Fourteen were prospective studies [14–27], four were randomized control trials [28–31], and one was a retrospective study [32]. According to the Downs and Black scoring system, the quality of the studies was graded as "Fair" (n = 13) or "Good" (n = 6).

會將每篇分數附在下列表格中

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FAITH-是否以表格和圖表總結試驗結果 (1)

Table 1 continued

	Author (year), location	Study design	Sample size	Demographic details	Pattern of hemorrhoids	Type of anesthesia	Laser diode type	Mean duration of procedure (± SD)/ min	Complications	Short-term outcome (less than 1 year)	Long-term outcome (1 year of more)
8	Alsisy et al. (2018), Egypt	Prospective Study, comparison group; laser vs. open	30	M = 18 F = 12 Mean age = 34.73 ± SD 10.17	G2,G3	SA	980 nm	30.63(± SD 4.90)	3 patients: thrombosis of hemorrhoids 3–4 days after the laser procedure	Higher post-op bleeding compared to open technique ($p < 0.05$) Post-op pain score (VAS): 2- lower than open technique ($p < 0.001$) Mean period of returning to work: 7.53 days ($pp < 0.001$ compared to open technique) Incidence of complications such as urinary retention were significantly lower ($p = 0.038$)	
9	Nazeri et al. (2015), Iran	RCT, comparison group; laser vs. open technique	29	M = 19 F = 10 Mean age = 43.3 ± SD 13.8 years	G2,G3	GA	980 nm	32.8 ± SD 7.0	Post-op local infection: 1. Thrombosis after 3–4 days: 2	Post-op day 1 mean pain score (VAS): 1.48 (significantly lower than open technique, $p = 0.001$) Post-op bleeding: significantly less than open technique ($p < 0.001$)	NA

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評讀結果：■是 □否 □不確定

FAITH-是否以表格和圖表總結試驗結果 (2)

Retrospective study 回顧性研究 (n=1)

編號	作者(年), 地點	研究設計 (含是否有對照組)	樣本數	人口統計詳情	痔瘡等級	麻醉方式	雷射波長	平均費時 (± SD)/min	併發症	短期成效 (少於1年)	長期成效 (多於1年)
1	Adbulkarim et al. (2020), Pakistan	Retrospective study, comparison group; laser vs. open technique	21	M = 11 F = 10 Age-39.3(± SD8.7)	G2, G3, G4	Local	980 nm	The mean operative times were shorter (29.67 ± SD 17.50 vs. 39.20 ± SD 20.77 min, $p = 0.146$)	Post-op infections were comparable to open technique	In laser group, post-op pain score was less ($p = 0.227$). Rate of urinary complications was 9.5% compared to 6.7% in open technique	NA

得分:15分 (Fair)

RCT隨機對照試驗 (n=4)

編號	作者(年), 地點	研究設計(含是否有對照組)	樣本數	人口統計詳情	痔瘡等級	麻醉方式	雷射波長	平均費時(± SD)/min	併發症	短期成效(少於1年)	長期成效(多於1年)
2	Poskus et al. (2020), Lithuania	RCT; laser vs. open technique	40	M = 27, F = 13 Age- 47 ± 13 years	G2,G3	None	1470 nm	15 ($p < 0.001$ compared to open technique)	None	Mean post-op pain intensity at rest(VAS): 3.1 Mean post-op pain intensity during defecation: 3.8 ($p < 0.001$ compared to open technique) Median time to return to regular work: 15 days Wexner score-3 Recurrence bleeding: 12.5% ($n = 5$) Recurrence prolapse: 15% ($n = 6$)	Recurrences at 1 year: 10% ($n = 4$)
9	Nazari et al. (2015), Iran	RCT, comparison group; laser vs. open technique	29	M = 19 F = 10 Mean age = 43.3 ± SD 13.8 years	G2,G3	GA	980 nm	32.8 ± SD 7.0	Post-op local infection: 1. Thrombosis after 3–4 days: 2	Post-op day 1 mean pain score (VAS): 1.48 (significantly lower than open technique, $p = 0.001$) Post-op bleeding: significantly less than open technique ($p < 0.001$)	NA

得分: 22分(good)

得分: 22分(good)

RCT 隨機對照試驗 (n=4)

FAITH- (4)

編號	作者(年), 地點	研究設計 (含是否有對照組)	樣本數	人口統計詳情	痔瘡等級	麻醉方式	雷射波長	平均費時 (± SD)/min	併發症	短期成效 (少於1年)	長期成效 (多於1年)
18	Giamundo et al. (2011), Italy	RCT, comparison group; laser vs. RBL	30	M = 13 F = 17 Median age = 47 years	G2,G3	None	980 nm	Median operative time = 10 (RBL group -8)	Tenesmus with mild urinary retention was observed in 4 patients after RBL and in none after laser procedure ($P <$ .001)	Median post-op score was 1.1 which is significantly lower than the RBL group ($P < 0.001$) At 6 months, resolution of symptoms in 90% of patients (compare to 53% in RBL group- $p < 0.001$) Quality of life score at 6 months was better than RBL group ($p = 0.002$)	NA
Laser hemorrhoidoplasty and dearterialization											
19	Naderan et al. (2016), Iran	RCT, comparison group;laser vs. open	30	M = 13 F = 17 Mean age = 43.7 years	G2,G3	GA	980 nm	33.1 ± 7.3	Two patients in the laser group presented with thrombosis of external hemorrhoid 7–10 days after the procedure	Mean post-op day 2 pain score (VAS):1.6 (lower than the open technique- p = 0.006) Post-op bleeding in 10% ($n = 3$) of patients (lower than the open technique, $p = 0.053$) Urinary retention in 1 patient (not significantly lower than open technique)	After 12 months, none required reoperation Complete resolution in 70%($n = 21$)

得分: 16分(Fair)

得分: 20分(good)

Prospective study 前瞻性研究 (n=14)

FAITH- (5)

作者、年份、國家	波長、樣本數		短期成效 (少於1年)	長期成效 (多於1年)	得分
3.Brusciano etal. (2019). Italy	1470nm	50	術後疼痛強度 (VAS)：2 分、術後無自發性出血、無排便後出血、MeanCleveland clinic incontinence score:0	NA	15分(Fair)
4.Ferhatoglu etal. (2019), Turkey	1470nm	47	術後（第二天）平均疼痛強度（VAS）：2.85 、術後出血：14.9%（n=7）、返家後復發：21.3%（n=10）	NA	17分(Fair)
5.S.Faesetal. (2019), Switzerland	**1470nm**	**50**	**疼痛強度 (VAS) : 0 到 5分。復發減少至 1 級、所有患者在 30 天平均工作能力：2 天即可回去工作**	**3年後復發數:34% 疼痛（VAS）: 1 到 3分。**	**20分(Good)**
6. Malokuetal. (2019), Kosovo	980nm	**100**	術後第 1 天和第 30 天平均疼痛評分 (VAS)：分別為 2.2 和 0.2（開放式手術相比低 **p<0.0001**）術後出血為 13%，而開放式手術為 77%（**p<0.0001**）平均恢復時間：17.2 天（明顯短於開放式手術**p<0.0001**）	NA	17分(Fair)
7. Mohommed etal. (2019),Iraq	980nm	**500**	5 天後出血：20.6%(與 60.6% 使用開放式技術 (**p<0.001**) 顯著降低疼痛 (**p<0.01**) 顯著降低感染率 (**p<0.01**)	三年無復發率與開放式手術的 9% 相比（**p<0.01**）無肛門狹窄、大便失禁、尿滯留等併發症（與開放式手術相比**p<0.01**）	16分(Fair)

FAITH- (6)

Prospective study 前瞻性研究 (n=14)

作者、年份、國家	波長、樣本數		短期成效 (少於1年)	長期成效 (多於1年)	得分
8.Alsisyetal. (2018), Egypt	980nm	30	與開放式手術相比，術後出血較高 (**p<0.05**) 術後疼痛評分 (VAS)：比開放式手術低 2分 (**p<0.001**) 平均重返工作時間：7.53 天（與開放式技術相比，**p<0.001**） 尿滯留等並發症的發生率顯著降低（**p= 0.038**)	NA	17分 (Fair)
10. Malokuetal. (2014), Kosovo	980nm	20	術後第一天疼痛：5 名患者(VAS) :0-1分、15 名(VAS): 2-5分 早期術後疼痛低於開放性手術 1 個月後兩種手術的疼痛評分相似	NA	17分 (Fair)
11.Jahanshani etal. (2012),Iran	980nm	381	術後併發症 12 例 (3.51%) 2 例因出血再次住院	NA	16分 (Fair)
12. Rahaman etal. (2019), Bangladesh	980nm	100	15 名患者出現出血情形約 :15% 患者疼痛（VAS）症狀消失: 88% 術後 3 個月總體滿意度指數為 :89%	NA	15分 (Fair)
13.Rametal. (2018), Israel	980nm	62	首次排便時 (VAS) 為 :1 （n=12 ） 88.7% 的患者術後第 2 天返回工作 6 個月隨訪，未報告並發症	NA	17分 (Fair)

FAITH- (7)

Prospective study前瞻性研究 (n=14)

作者、年份、國家	波長、樣本數		短期成效 (少於1年)	長期成效 (多於1年)	得分
14. Giamundo etal. (2018), Italy	**980nm**	**284**	**術後早期平均疼痛評分 (VAS)：1.1 術前和術後便秘或失禁評分無顯著差異 90.3% 的患者症狀得到緩解 4 名患者需要進一步手術**	**一年的追蹤出血評分（p<0.0001）、休息時疼痛（VAS）（p<0.0001）和活動時疼痛（VAS）（ p<0.0001）顯著降低**	**21分 (Good)**
15.Boarinietal. (2017), Brazil	980nm	55	術後疼痛 (VAS)：1.4 復發率：15% 6 個月評估：症狀消失 (84%) 總體滿意度指數 (89%) 痔瘡體積減少 (80%)	NA	17分 (Fair)
16. Tamburini etal. (2016), Italy	980nm	51	術後3個月所有患者均恢復日常活動 平均出血量（VRS）為0.18 平均疼痛評分（(VRS）為0.1 直腸脫垂:4例	2年後追蹤 平均出血（VRS）：0.03 平均疼痛（VRS）：0 直腸脫垂:3例	16分 (Fair)
17. Creaetal. (2014), Italy	**980nm**	**97**	**83% 的患者在術後第 1 天出現 0 到 1 次疼痛 5% 的患者在 1 個月後主訴出血**	**追蹤2年 復發率為5%**	**19分 (Good)**

FAITH- (8)

Table 2 Availability of information in the studies included as per objective of the systemic review

	Author	Doppler guidance	Pain visual analog scale	Pain comparison with open technique	Long-term follow-up
1	Adbulkarim et al.	No	No	Yes	No
2	Poskus et al.	No	Yes	Yes	Yes
3	Brusciano et al.	No	Yes	No	No
4	Ferhatoglu et al.	No	Yes	No	No
5	S. Faes et al.	No	Yes	No	Yes
6	Maloku et al.	No	Yes	Yes	No
7	Mohommed et al.	No	Yes	Yes	Yes
8	Rahaman et al.	No	Yes	No	No
9	Alsisy et al.	No	Yes	Yes	No
10	Ram et al.	Yes	Yes	No	No
11	Giamundo et al.	Yes	Yes	No	Yes
12	Boarini et al.	Yes	Yes	No	No
13	Tamburini et al.	Yes	No	No	Yes
14	Naderan et al.	No	Yes	Yes	Yes
15	Nazari et al.	No	Yes	Yes	No
16	Crea et al.	Yes	No	No	Yes
17	Maloku et al.	No	Yes	Yes	No
18	Jahanshani et al.	No	No	Yes	No
19	Giamundo et al.	Yes	Yes	Yes	No

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Yes(6)
No(13)

Yes(15)
No(4)

Yes(10)
No(9)

Yes(7)
No(12)

FAITH-試驗的結果是否相近-異質性?

評讀結果：
□是
■否
□不確定

Discussion

Most data in this systematic review were extracted from prospective studies. Table 2 shows the availability of information in respective publications in relation to the objectives of this study. There was considerable heterogeneity in terms of study models, postoperative assessment tools and outcome measures. Therefore, it was deemed inappropriate to perform a meta-analysis due to different designs and heterogeneity of the outcome measures.

文章中提到因高度異質性，
不適合 meta-analysis。

(圖片取自https://fr.123rf.com/photo_58067304_hommes-d-h%C3%A9morro%C3%AFdes.html)

評讀總表

系統性文獻回顧品質	
研究是否找到(Find) 所有的相關證據？	評讀結果：否
文獻是否經過嚴格評讀(Appraisal)？	評讀結果：是
是否只納入(Included)具良好效度的文章？	評讀結果：否
作者是否以表格和圖表「總結」(Total up)試驗結果？	評讀結果：是
試驗的結果是否相近-異質性(Heterogeneity)？	評讀結果：否

Appraisal sheets(FAITH)

- Appraisal Tool
  - **[統合分析 Meta-analysis]**
    - 步驟1：研究探討的問題為何 (PICO)
    - 步驟2：研究的品質如何 (內在效度)
    - **步驟3：研究結果之意義為何 (效益)**

結論

- 與開放性手術相比，雷射痔瘡消融手術對 2 級和 3 級痔瘡具有可接受的臨床結果，術後疼痛和出血率較低，長期結果令人滿意。
- 成本效益、安全性、可行性、患者期望和滿意度的評估是未來研究的重要領域。

(圖片取自https://www.liver.org.tw/HEVideoView.php?sid=101)

限制、建議

- 仍須考量臨床症狀選擇術式，痔瘡分級、複雜程度等。
- 19篇裡只有7篇具有長期成效，無法準確提供長期追蹤的成果。
- 可對於病患日後生活品質、成本效益等等做追蹤。

(圖片取自:https://englishlive.ef.com/zh-tw/blog/english-in-the-real-world/idioms-for-

回到臨床 (1)

比較	開放性痔瘡切除手術	雷射痔瘡消融手術
分級	可治療較複雜性痔瘡	治療單純性痔瘡
費用	健保給付	院內雷射手術耗材費用為例 ✓雷射手術設備 Neolaser：45000元 ✓雷射手術設備 Biolitec：36000元 ✓止血夾：400～500元 ✓診察費+病房費+護理費+藥服費 = 3300元 **總計出院約需花費 39800～48800 元** 
住院天數	3～5 天	2～3 天

(https://astrakhanfm.ru/obshhestvo/57357-astrahanec-stal-millionerom-blagodarja-loteree.html)

回到臨床 (2)

➢ 疼痛評估比較(利用日康病房2021/08 至 2022/01)

項目 / 術式	開放性痔瘡切除手術(n=73)	雷射痔瘡消融手術(n=48)
麻醉方式	SA (n=52) GA (n=21)	SA (n=14) GA (n=34)
術後返室立即疼痛評估	6～7分 (NRS)	2～3分 (NRS)
首次排便時疼痛評估	8～9分 (NRS)	6～7分 (NRS)
疼痛頻率較高時機	麻醉六小時後、首次下床時	NA

(圖片取自https://www.ca2-health.com/aging/2014/10/07/%E7%96%BC%E7%97%9B%E8%A9%B2%E5%A6%82%E4%BD%95%E8%A1%A8%E9%81%94)

依系統性文獻回顧之結論

- 是否同意對於單純性痔瘡個案推廣雷射痔瘡消融手術？

- ■ 同意 10位
- ■ 待評估 10位
- ■ 不同意1位

感謝聆聽 恭請指教