



三軍總醫院

Tri-Service General Hospital

實證醫學競賽

110 / 5 / 11

組別：第2組

組員：陳怡文、潘蕃憶、簡潔藥師

臨床場景

- 臨床情境：50yr林先生，HT 175cm，wt 92kg，History:Diabetes。醫師檢查其抽血報告發現林先生的Hb1Ac=10.2%，因此為他加開立Sitagliptin以控制血糖。林先生上網查詢資料，看到Sitagliptin (Januvia®)在網上有造成胰臟炎甚至是胰臟癌的疑慮，並在電視節目上也聽聞肉桂(Cinnamon)有控制血糖的功效。
- 病人詢問藥師：
 1. 請問Sitagliptin(Januvia®)真的會造成胰臟炎或胰臟癌嗎？
 2. 肉桂(Cinnamon)真的可以降低糖化血色素嗎？
 3. 能不要吃醫師加開的Januvia嗎，改吃其他藥物或其他血糖控制方法？

背景資訊

UpToDate®

§ 糖尿病 (Diabetes Mellitus type II) (這邊僅討論第二型)

1. 定義：

由於胰島素抗性不足以及和胰島素相對分泌不足有關，特徵為高血糖。

2. 診斷：

- 8小時空腹血糖值 (FPG) > 126mg/dl
- OGTT後兩小時血糖值 > 200mg/dl
- Hb1Ac > 6.5%

3. 治療：

- 口服藥物治療 (ex.Metformin, SGLT2i, Sufonylureas……等)

4. 風險因子：

- 種族/肥胖/飲食習慣 (高油高糖) /長期久坐

臨床問題

PICO 1 : 傷害型問題

	中文	英文
P	糖尿病	Diabetes Mellitus
I	Sitagliptin	
C	Placebo	
O	胰臟炎	Pancreatitis

臨床問題

PICO 2 : 治療型問題

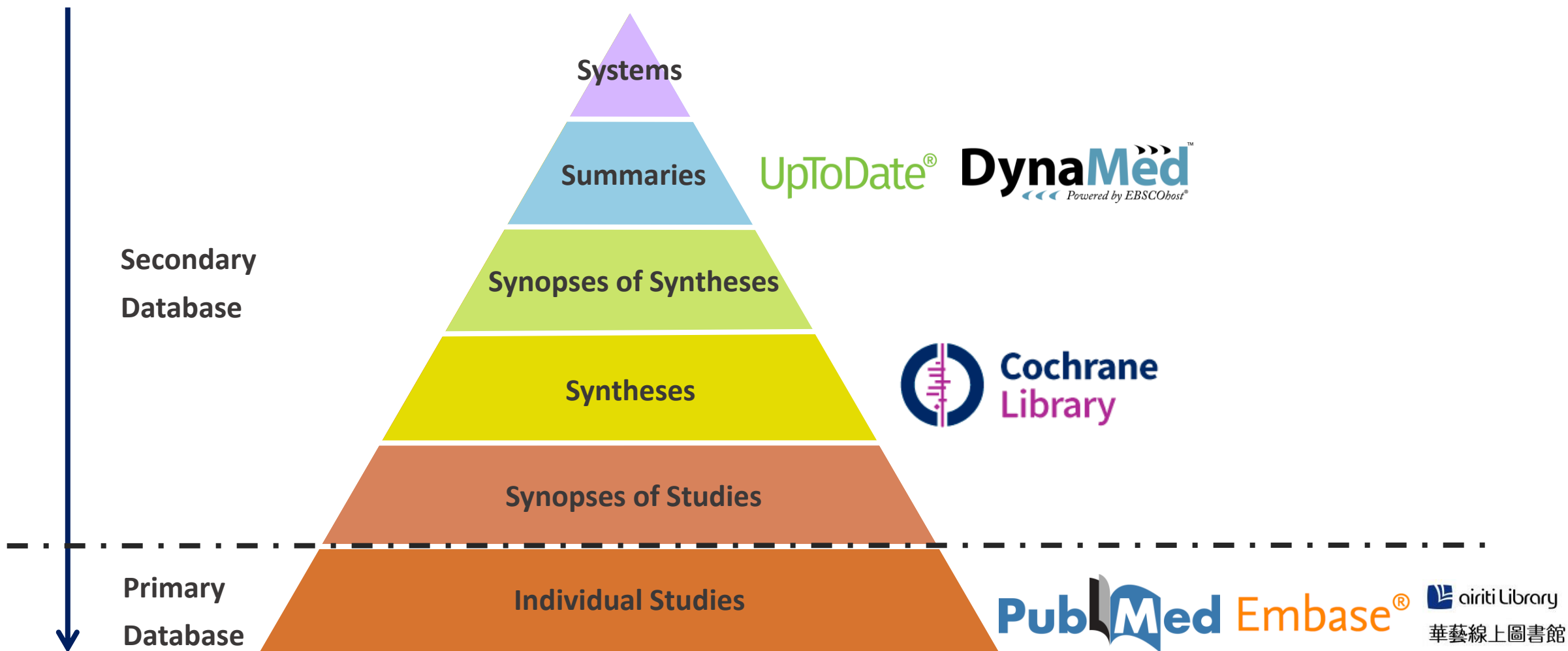
	中文	英文
P	糖尿病	Diabetes Mellitus
I	肉桂	Cinnamon
C	Placebo	
O	糖化血色素	Glycosylated hemoglobin

搜尋策略：關鍵字

選擇 **PICO 2**，原因：我組對於仿間保健食品，並不像一般藥物相對熟悉，希望透過實證資料佐證增進這方面的理解

	中文	關鍵字	同義字
P	糖尿病	Diabetes Mellitus	Diabetes/Diabetic
I	肉桂	Cinnamon/Cinnamon Extract	ceylon cinnamon cinnamomi cortex cinnamomi vericortex
C		Placebo	
O	糖化血色素	Glycosylated hemoglobin	glycated haemoglobin glycated hemoglobin A glycohaemoglobin glycosyl hemoglobin

搜尋策略：資料庫



搜尋策略：布林邏輯

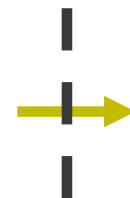
P	I	C	O
Diabetes Mellitus	Cinnamon OR Cinnamon Extract	Placebo	Glycosylated hemoglobin

搜尋策略：總論

- 關鍵字

布林邏輯

P & I 搜尋



依結果搜尋
其他關鍵字

- 順序：列為欲評讀文獻

1. Systematic
Review

2. Randomized
Controlled Trial

3. Cohort
Study

Secondary Database: Cochrane Library

The screenshot shows the Cochrane Library website. At the top left is the Cochrane Library logo with the tagline "Trusted evidence. Informed decisions. Better health." To the right, it says "Access provided by: National Defense Medical Center" and "English" with a dropdown arrow. Further right are "Cochrane.org" with an external link icon and "Sign In" with a user icon. A search bar contains "Title Abstract Keyword" and a magnifying glass icon. Below the search bar are "Browse" and "Advanced search" buttons. A navigation menu includes "Cochrane Reviews", "Trials", "Clinical Answers", "About", and "Help". A "Content Language Selection" notification states: "Your language preference is set to Chinese. Where translations are available, article sections will display in this language. Return to English." The main content area features a large background image of a blister pack of pills and a pill. A prominent article preview asks, "Do different doses or types of nicotine replacement therapy affect smoking cessation?" with a "Read the Review" link. To the right, there are two smaller promotional tiles: "World No Tobacco Day Read the Special Collection" and "Cochrane's new Editor in Chief Dr Karla Soares-Weiser". At the bottom, there are tabs for "Editorials" and "Special Collections".

Secondary Database: Cochrane Library

關鍵字：cinnamon.
diabetss

1. 使用 Search Manager 搜尋
2. 加入 布林邏輯 AND 與 OR 作搜尋連結
3. Search limit：未限制年份、語言

Cinnamomum zeylanicum | Select subheadings / qualifiers

Diabetes Complications | Select subheadings / qualifiers

Look up Clear

Definition

Cinnamomum zeylanicum - The tree which is known for its bark which is sold as cinnamon. The oil contains about 65-80% cinnamaldehyde and 10% EUGENOL and many TERPENES.

Thesaurus Matches

Exact Term Match

Cinnamomum zeylanicum

Synonyms: Cinnamon; Cinnamons; Cinnamomum verum

Phrase Matches

Cinnamomum zeylanicum

Synonyms: Cinnamon; Cinnamons

Cinnamomum aromaticum

Synonyms: Cinnamons, Chinese; Chinese Cinnamons; Chinese Cinnamon; Cinnamon, Chinese

Rats, Inbred LEC

Synonyms: Rats, Inbred Long Evans Cinnamon; Long-Evans Cinnamon Rat; Long-Evans Cinnamon Rat;

MeSH Trees

MeSH term - **Cinnamomum zeylanicum**

Explode all trees
 Single MeSH term (unexploded)

Explode selected trees **Select**

Tree number 1 **Select**

- Eukaryota [+16]
- Plants [+13]
 - Viridiplantae [+2]
 - Streptophyta [+2]
 - Embryophyta [+8]
 - Tracheophyta [+4]
 - Magnoliopsida [+96]
 - Laurales [+4]
 - Lauraceae [+9]
 - Cinnamomum [+3]
 - Cinnamomum aromaticum

Search Results

There are **52** results for your search on

- MeSH descriptor: Cinnamomum zeylanicum
- Explode all trees

Add to search manager

| | |
|------------------|----|
| Trials | 51 |
| Cochrane Reviews | 1 |

Save search **View results**

MeSH Trees

MeSH term - **Diabetes Complications**

Explode all trees
 Single MeSH term (unexploded)

Explode selected trees **Select**

Tree number 1 **Select**

- Endocrine System Diseases [+11]
 - Diabetes Mellitus [+8]
 - Diabetes Complications [+7]
 - Diabetic Angiopathies [+2]
 - Diabetic Cardiomyopathies
 - Diabetic Coma [+1]
 - Diabetic Ketoacidosis
 - Diabetic Nephropathies
 - Diabetic Neuropathies [+1]
 - Fetal Macrosomia
 - Diabetes, Gestational
 - Diabetes Mellitus, Experimental

Search Results

There are **7115** results for your search on

- MeSH descriptor: Diabetes Complications
- Explode all trees

Add to search manager

| | |
|------------------|------|
| Trials | 7026 |
| Cochrane Reviews | 89 |

Save search **View results**

Secondary Database: Cochrane Library

搜索結果：

Filter your results

Date i

Publication date

The last 3 months 0

The last 6 months 0

The last 9 months 0

The last year 0

The last 2 years 0

Custom Range:

to

Cochrane Reviews 1

Cochrane Protocols 0

Trials 122

Editorials 0

Special Collections 0

Clinical Answers 1

More ▾

1 Cochrane Review matching **cinnamon in Title Abstract Keyword AND diabetes in Title Abstract Keyword - (Word variations have been searched)**

Cochrane Database of Systematic Reviews
Issue 5 of 12, May 2021

Select all (1) Export selected citation(s) [Show all previews](#)

Order by ▾

Results per page ▾

1 **Cinnamon for diabetes mellitus**
Matthew J Leach, Saravana Kumar
Intervention Review 12 September 2012
[Show PICOs](#) ^{BETA} ▾ [Show preview](#) ▾

Primary Database: Embase

Embase®

Search Emtree Journals Results My tools Register Login (1) ?

PICO Search

請選取語言 | ▼

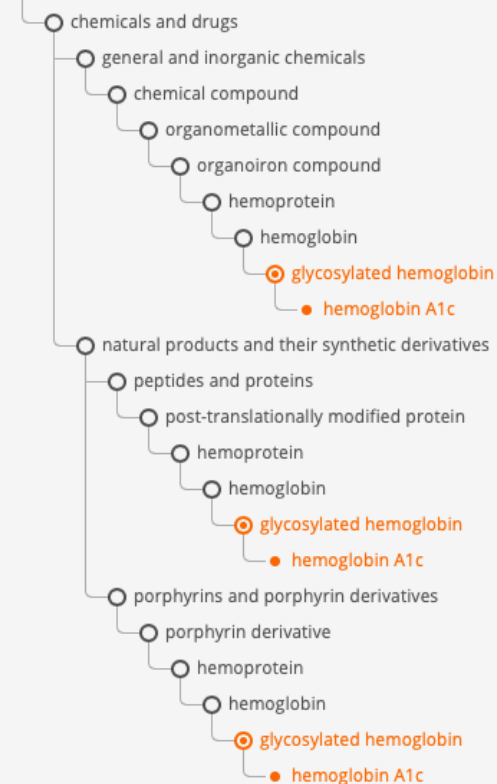
Quick PICO PV Wizard Medical device Advanced Drug Disease Device Article Authors

Find best term

Glycosylated hemoglobin

✕ ⬇

Emtree



Default search strategy

/mj /de /exp/mj /exp /br

Population

diabetes mellitus /exp + 3 synonyms :all

Clear field

Intervention

cinnamon /exp + 4 synonyms :all OR cinnamon extract /exp + 1 synonym :all

Clear field

Comparison

e.g. placebo

Outcome

glycosylated hemoglobin /exp + 22 synonyms :all

Study design (or miscellaneous)

e.g. randomized controlled trial

搜索篇數：42篇

Reset query Info

Show 93 results >

1. 使用 PICO search，增加效率
2. 使用 Emtree，增加精準度
3. 使用內建的 Synonyms 系統，增加搜尋廣度

Primary Database: Embase

Embase®

- Sources
- Drugs
- Diseases
- Devices
- Floating Subheadings
- Age
- Gender
- Study types
- Publication types
- Journal titles
- Publication years
 - 2020 4
 - 2019 6
 - 2018 3
 - 2017 3
 - 2016 6
 - 2014 1
 - 2013 2
 - 2012 6
 - 2011 4
- Click on 'Apply' to apply your selection
- Export
- Authors
- Conference Abstracts

1. 使用 Filter 和 Limit

- 限縮文獻種類
- 限縮年份為10年內

Results

('diabetes mellitus'/exp OR 'diabetes' OR 'diabetes mellitus' OR 'diabetic') AND ('cinnamon'/exp OR 'ceylon cinnamon' OR 'cinn hemoglobin'/exp OR 'glycated haemoglobin' OR 'glycated hemoglobin' OR 'glycated hemoglobin a' OR 'glycohaemoglobin' OR 'glycosylhaemoglobin' OR 'glycosylhemoglobin' OR 'glycosylised haemoglobin' OR 'glycosylized hemoglobin' OR 'haemoglobin OR 'haemoglobin glycosylation' OR 'hemoglobin a, glycosylated' OR 'hemoglobin glycoside')

Search > Mapping Date Sources Fields Quick limits **EBM** Pub. types Languages

Evidence Based Medicine

- Cochrane Review
- Systematic Review
- Meta Analysis
- Controlled Clinical Trial
- Randomized Controlled Trial

搜索篇數：14篇

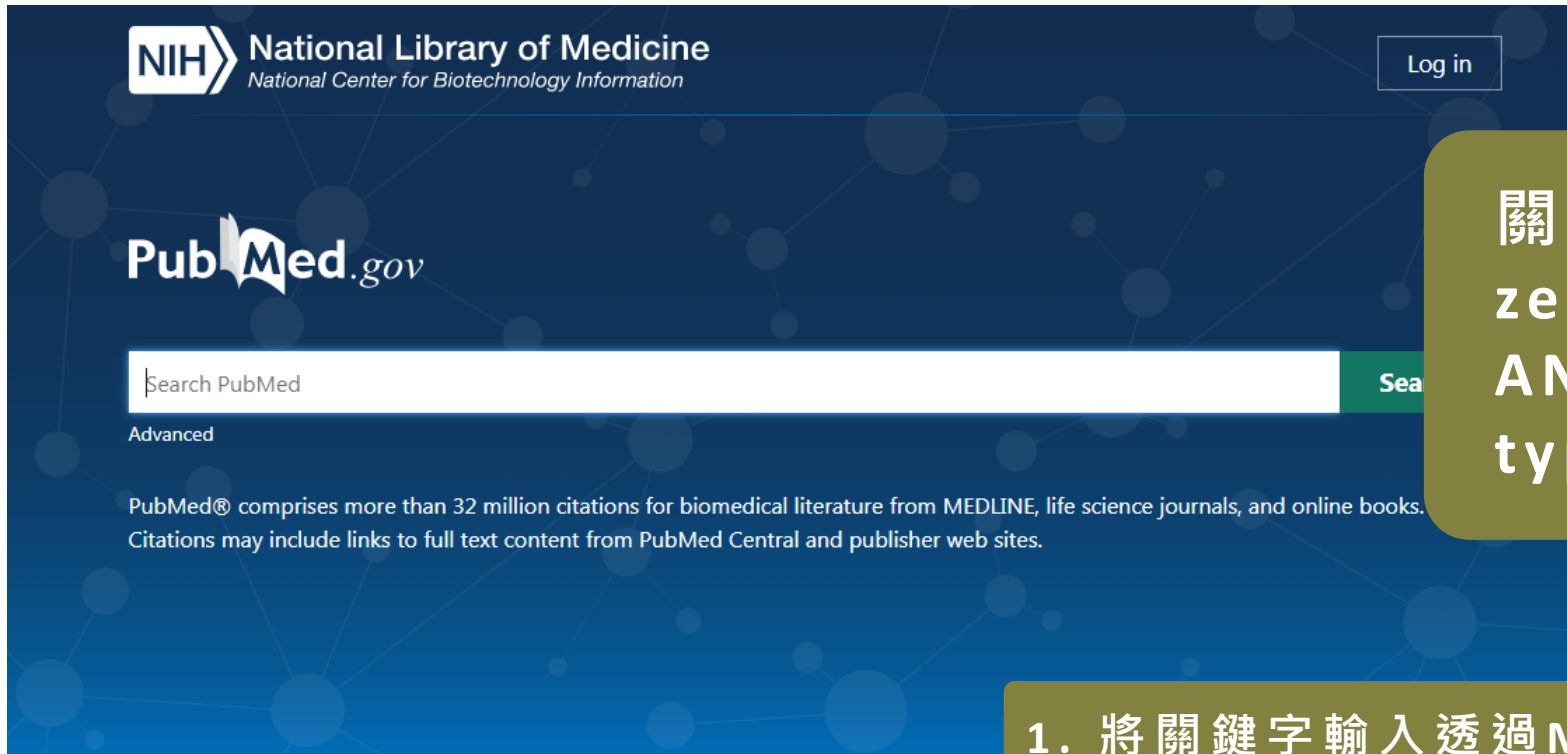
14 results for search #9

Results View Print Export Email Add to Clipboard

Select number Selected: 0 (clear)


- An evaluation of randomized controlled trials on nutraceuticals containing traditional Chinese medicines for **diabetes** management: A systematic review
Shi J., Hu H., Harnett J., Zheng X., Liang Z., Wang Y.-T., Ung C.O.L.
Chinese Medicine (United Kingdom) 2019 14:1 Article Number 54 Cited by: 4
Embase Abstract Index Terms View Full Text
- Efficacy and safety of **cinnamon** in type 2 **diabetes mellitus** and pre-**diabetes** patients: A meta-analysis and meta-regression
Deyno S., Eneyew K., Seyfe S., Tuyiringire N., Peter E.L., Muluye R.A., Tolo C.U., Ogwang P.E.
Diabetes Research and Clinical Practice 2019 156 Article Number 107815 Cited by: 6
Embase MEDLINE Abstract Index Terms View Full Text
- The impact of **cinnamon** on anthropometric indices and glycemic status in patients with type 2 **diabetes**: A systematic review and meta-analysis of clinical trials
Namazi N., Khodamoradi K., Khamechi S.P., Heshmati J., Ayati M.H., Larjani B.
Complementary Therapies in Medicine 2019 43 (92-101) Cited by: 17
Embase MEDLINE Abstract Index Terms View Full Text
- To what extent does **cinnamon** administration improve the glycemic and lipid profiles?
Santos H.O., da Silva G.A.R.
Clinical Nutrition ESPEN 2018 27 (1-9) Cited by: 18
Embase MEDLINE Abstract Index Terms View Full Text
- Culinary herbs and spices and the effects on cardiovascular disease risk factors in adults
Maxwell S.E., Dickinson K.M.
Circulation 2018 137 Supplement 1
Embase Abstract Index Terms
- Effects of medicinal food plants on impaired glucose tolerance: A systematic review of randomized controlled trials
Demmers A., Korthout H., van Etten-jamaludin F.S., Kortekaas F., Maaskant J.M.
Diabetes Research and Clinical Practice 2017 131 (91-106) Cited by: 15
Embase MEDLINE Abstract Index Terms View Full Text
- Do **cinnamon** supplements have a role in glycemic control in type 2 **diabetes**?
Costello R.B., Dwyer J.T., Saldanha L.G., Bailey R.L., Wambogo E.
FASEB Journal 2016 30 Meeting Abstracts
Embase Abstract Index Terms
- Targeting **diabetes**: The benefits of an integrative approach
Redmer J., Longmier E., Wedel P.
Journal of Family Practice 2013 62:7 (337-344) Cited by: 2
Embase MEDLINE [No abstract available] Index Terms
- Cinnamon** use in type 2 **diabetes**: an updated systematic review and meta-analysis
Allen R.W., Schwartzman E., Baker W.L., Coleman C.I., Phung O.J.
Annals of family medicine 2013 11:5 (452-459)
MEDLINE Abstract Index Terms View Full Text
- Efficacy and safety of 'true' **cinnamon** (Cinnamomum zeylanicum) as a pharmaceutical agent in **diabetes**: A systematic review and meta-analysis
Ranasinghe P., Jayawardana R., Galappaththy P., Constantine G.R., de Vas Gunawardana N., Katulanda P.
Diabetic Medicine 2012 29:12 (1480-1492) Cited by: 99
Embase MEDLINE Abstract Index Terms View Full Text
- Cinnamon** in glycaemic control: Systematic review and meta analysis
Akilen R., Tsiarni A., Devendra D., Robinson N.
Clinical Nutrition 2012 31:5 (609-615) Cited by: 61
Embase MEDLINE Abstract Index Terms View Full Text
- Diabetes mellitus** and phytotherapy in Turkey
Parildar H., Sertler R., Yesilada E.
Journal of the Pakistan Medical Association 2011 61:11 (1116-1120) Cited by: 5
Embase MEDLINE Abstract Index Terms
- Meta-analysis of the effect of herbal supplement on glycemic control in type 2 **diabetes**
Suksomboon N., Poolsup N., Boonkaew S., Suthisisang C.C.
Journal of Ethnopharmacology 2011 137:3 (1328-1333) Cited by: 68
Embase MEDLINE Abstract Index Terms View Full Text
- Herbs and herbal preparations for glycemic control in **diabetes mellitus** (a systematic review)
Shojaili A., Goushegir A., Hashem Dabaghian F., Abdollahi M., Fallah Huseini H.
Journal of Medicinal Plants Research 2011 5:16 (3846-3855) Cited by: 10
Embase Abstract Index Terms


Primary Database: PubMed





關鍵字："Cinnamomum zeylanicum"[MeSH Terms] AND "diabetes mellitus, type 2"[MeSH Terms]

1. 將關鍵字輸入透過 MeSH 找出最適當之 Medical Terms
2. 利用 布林邏輯 篩選文獻搜尋分類
3. 使用 Clinical Queries 檢索分類



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MeSH Database
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Primary Database: PubMed



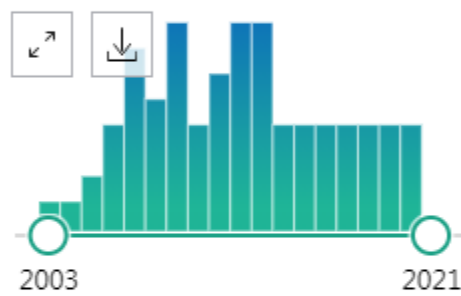
("Cinnamomum zeylanicum"[Mesh]) AND ("Diabetes M...)

Advanced Create alert Create RSS

搜索結果：

MY NCBI FILTERS

RESULTS BY YEAR



TEXT AVAILABILITY

Abstract

Free full text

75 results

[Efficacy and safety of cinnamon in type 2 diabetes patients: A meta-analysis and meta-regression.](#)

1
Cite Deyno S, Eneyew K, Seyfe S, Tuyiringire N, Peter EL, Muluye RA, Tolo CU, Ogwang PE. Diabetes Res Clin Pract. 2019 Oct;156:107815. doi: 10.1016/j.diabres.2019.107815. Epub 2019 Aug 16. Share PMID: 31425768

[Cinnamon use in type 2 diabetes: an updated systematic review and meta-analysis.](#)

2
Cite Allen RW, Schwartzman E, Baker WL, Coleman CI, Phung OJ. Ann Fam Med. 2013 Sep-Oct;11(5):452-9. doi: 10.1370/afm.1517. Share PMID: 24019277 Free PMC article. Review.

※ 使用 **Filter** 功能以提升篩選效率

1. 限定適當文章類型：
 - Meta-analysis
 - Systematic Review
 - Randomized Controlled Trial
2. 限定搜尋範圍：
 - 『5年內』文章
 - 『Free Full text』文章
 - 『human』文章

Primary Database: 華藝線上圖書館

關鍵字：

cinnamon 所有欄位

AND ▼ diabetes 所有欄位

AND ▼ 所有欄位

> > 增加查詢欄位

查詢 清除

搜尋語言： 所有文章 繁體中文 簡體中文 英文 其他語言

文獻類型： 所有類型 電子期刊 會議論文 碩博士論文 電子書

出版地區： 所有地區 台灣 中國 美國 其他地區

年代：
 不限
 2011 到 2021
 可用半形逗號分隔年代，例如：2003,2005

電子全文： 不限 限有全文 單位已採購

每頁顯示筆數： 10 20 50

相關程度最高

1. 進階檢索、中文關鍵字
2. 布林邏輯連接關鍵字
3. 限定十年內

Primary Database: 華藝線上圖書館

搜索結果：

| | | | |
|-----------|-----------|------------|----------|
| 期刊文章
8 | 會議論文
0 | 碩博士論文
6 | 電子書
0 |
|-----------|-----------|------------|----------|

依下方條件來精確結果

來源資料庫

CEPS中文電子期刊 (8)

學科分類

醫藥衛生 (8)

年代 [清除條件](#)

2011~2021 (8)

出版品名稱

Journal of Traditional and Complementary Medicine (4)
Asia Pacific Journal of Clinical Nutrition (1)
Journal of Diabetes Mellitus (1)
Nutrition and Metabolic Insights (1)
中醫藥研究論叢 (1)

指標期刊

MEDLINE(2)
Scopus(2)
ACI(1)

查詢 (cinnamon) = 所有欄位 AND (diabetes) = 所有欄位
查詢表達式: $[(ALL):(cinnamon) AND [ALL]:(diabetes)]$
年代: 2011~2021

篇名.關鍵字.摘要 | 作者 | 刊名 | 起始年 | 結束年 | [檢索結果再查詢](#)

每頁 10 筆

共 8 筆, 1 - 8 筆

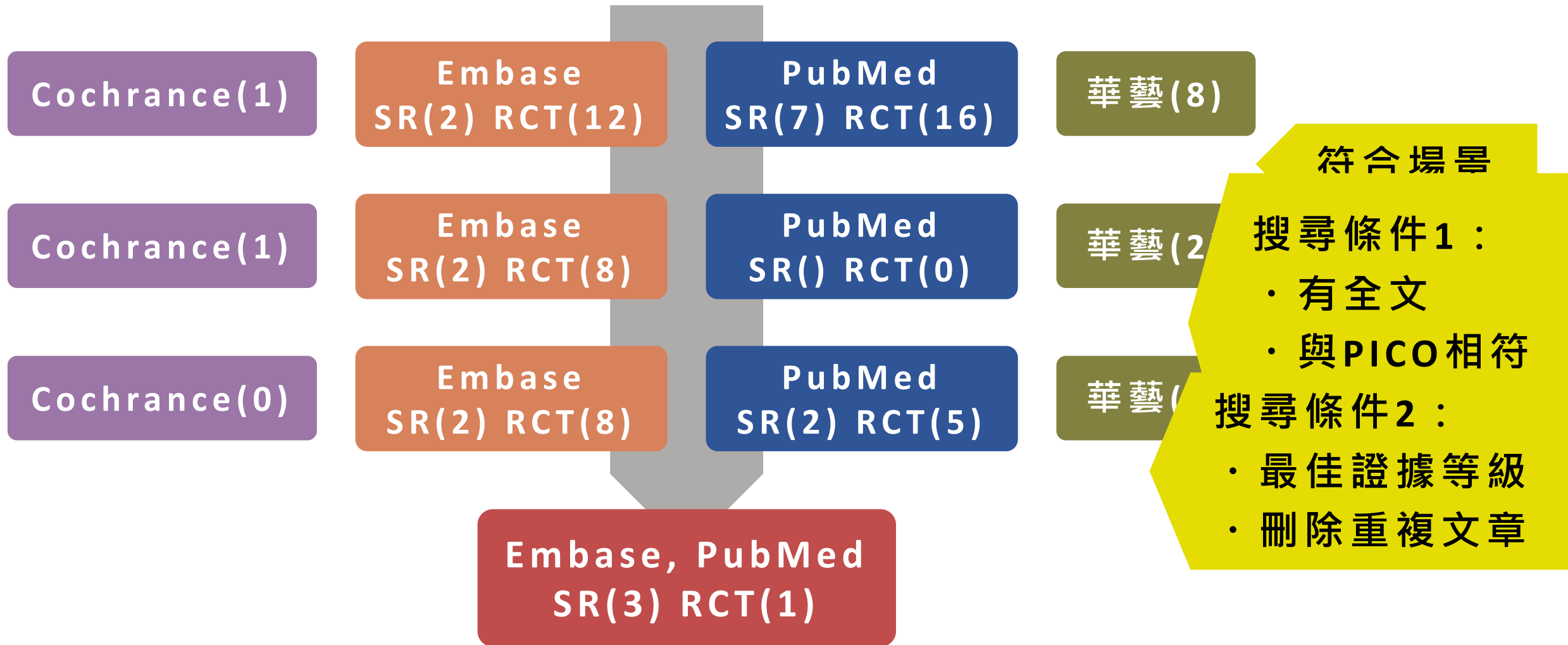
共 1 頁 [◀](#) 1 [▶](#)

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1 **Cinnamon from the selection of traditional applications to its novel effects on the inhibition of angiogenesis in cancer cells and prevention of Alzheimer's disease, and a series of functions such as antioxidant, anticholesterol, antidiabetes, antibacterial, antifungal, nematicidal, acaracidal, and repellent activities**
Rafie Hamidpour ; Mohsen Hamidpour ; Soheila Hamidpour ; Mina Shahlari ;
Journal of Traditional and Complementary Medicine 5卷2期 (2015/04) , 66-70
Alzheimer's disease ; angiogenesis inhibitor ; cancer ; cinnamon ; chronic diseases ; diabetes ;
10.1016/j.jtcme.2014.11.008
[預覽摘要](#) | [被引用次數 \(1\)](#)

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篩選結果



文章篩選

| 標題 | 年份 |
|---|--------------------|
| <p>Efficacy and safety of cinnamon in type 2 diabetes mellitus and pre-diabetes patients: A meta-analysis and meta-regression</p> | <p>2019</p> |
| <p>The impact of cinnamon on anthropometric indices and glycemic status in patients with type 2 diabetes: A systematic review and meta-analysis of clinical trials</p> | <p>2019</p> |
| <p>Cinnamon use in type 2 diabetes: an updated systematic review and meta-analysis</p> | <p>2013</p> |
| <p>Controlling type 2 diabetes mellitus with herbal medicines: a triple-blinded randomized controlled trial of efficacy and safety</p> | <p>2016</p> |

文章篩選

| 標題 | P | I | C | O |
|---|--------|---|---|---|
| Efficacy and safety of cinnamon in type 2 diabetes mellitus and pre-diabetes patients: A meta-analysis and meta-regression | ● (部分) | ● | ● | ● |
| The impact of cinnamon on anthropometric indices and glycemic status in patients with type 2 diabetes: A systematic review and meta-analysis of clinical trials | ● | ● | ● | ● |
| Cinnamon use in type 2 diabetes: an updated systematic review and meta-analysis | ● | ● | ● | ● |
| Controlling type 2 diabetes mellitus with herbal medicines: a triple-blinded randomized controlled trial of efficacy and safety | ● | ● | ● | × |

篩選結果



The impact of cinnamon on anthropometric indices and glycemic status in patients with type 2 diabetes: A systematic review and meta-analysis of clinical trials

Nazli Namazi^{a,*}, Kajar Khodamoradi^b, Seyed Peyman Khamechi^c, Javad Heshmati^d,
Mohammad Hossein Ayati^{c,*}, Bagher Larijani^{e,*}

^a Diabetes Research Center, Endocrinology and Metabolism Clinical Sciences Institute, Tehran University of Medical Sciences, Tehran, Iran

^b Department of Nursing, Tehran Medical Sciences Branch, Islamic Azad University, Tehran, Iran

^c School of Traditional Medicine, Tehran University of Medical Sciences, Tehran, Iran

^d Department of Nutrition, School of Public Health, Iran University of Medical Sciences, Tehran, Iran

^e Endocrinology and Metabolism Research Center, Endocrinology and Metabolism Clinical Sciences Institute, Tehran University of Medical Sciences, Tehran, Iran

ARTICLE INFO

Keywords:
Cinnamon
T2DM
Glycemic parameters
Metabolic status

ABSTRACT

Background and aims: There is some evidence regarding the positive effects of cinnamon on metabolic status in patients with type 2 diabetes (T2DM). However, they are conflicting. In the present study, we aimed to systematically review the effects of cinnamon on glycemic status and anthropometric indices in patients with T2DM.

Methods: Five electronic databases including PubMed/Medline, SCOPUS, Web of Sciences, EMBASE, and the Cochrane library were searched until 31 February 2018 with no language limitation. Randomized clinical trials that examined the effects of cinnamon on at least fasting blood sugar (FBS) were included. Other glycemic parameters and anthropometric indices were also extracted. A random effects model with DerSimonian and Laird method was used for pooling the effect sizes.

Results: Finally, 18 studies were included in the meta-analysis. Supplementation with cinnamon reduced FBS by -19.26 mg/dL (95% CI: $-28.08, -10.45$; $I^2: 96.5\%$; $p = 0.0001$) compared to placebo. However, the effects of cinnamon on HbA1C (-0.24% ; 95% CI: $-0.48, -0.01$; $I^2: 76.8\%$, $p = 0.0001$), body weight ($-1.87, 2.30$; $I^2: 0\%$; $p = 0.79$), body mass index (WMD: -0.05 kg/m²; 95% CI: $-0.52, 0.42$; $I^2: 0\%$; $p = 0.91$), and waist circumference (WMD: -0.53 cm; 95% CI: $-3.96, 2.81$; $I^2: 0\%$; $p = 0.66$) were not significant. Additionally, cinnamon did not change the serum levels of insulin and insulin resistance significantly.

Conclusion: Supplementation with cinnamon can reduce serum levels of glucose with no changes in other glycemic parameters and anthropometric indices. However, due to high heterogeneity findings should be interpreted with great caution.

《文獻納入理由》

- 年份
- 族群
- 符合PICO

§ Section A: Are the results of the review valid?

1. *Did the study address a clearly focused research question?*
此研究是否問了一個清楚明確的問題？

YES NO CAN'T TELL

Table 1

PICO criteria for the present systematic review.

| PICO | Descriptors |
|-----------------|---|
| Participants:P | Adult subjects with type 2 diabetes |
| Intervention: I | Cinnamon OR Cinnamons OR Cinnamomum verum OR Cinnamomum zeylanicum OR Cinnamomum OR Ceylon cinnamon |
| Comparison: C | Placebo group |
| Outcome: O | Weight OR "BMI" OR Body mass index OR Quetelet OR Glucose OR Sugar OR FBS OR Insulin OR HOMA-IR OR "insulin resistance" OR QUICKI OR "insulin sensitivity" OR HbA1c OR Diabetes OR Diabetic OR DM |

§ Section A: Are the results of the review valid?

1. Did the study address a clearly focused research question?

此研究是否問了一個清楚明確的問題？

YES NO CAN'T TELL

| | 此篇研究 | 臨床情境 | 是否相符 |
|----------|---|--|---|
| P | Adult subjects with type 2 diabetes | 55 y/o Male ,DM ,overweight(BMI=30),
Poor blood sugar control | <input checked="" type="radio"/> YES <input type="radio"/> NO |
| I | Cinnamon OR Cinnamons OR Cinnamomum verum OR Cinnamomum zeylanicum OR
Cinnamomum OR Ceylon cinnamon | cinnamon | <input checked="" type="radio"/> YES <input type="radio"/> NO |
| C | Placebo group | Placebo group | <input checked="" type="radio"/> YES <input type="radio"/> NO |
| O | Weight OR "BMI" OR Body mass index OR Quetelet OR Glucose OR Sugar OR FBS OR
Insulin OR HOMA-IR OR "insulin resistance" OR QUICKI OR "insulin sensitivity" OR
HbA1c OR Diabetes OR Diabetic OR DM | HbA1c. FBG. | <input checked="" type="radio"/> YES <input type="radio"/> NO |

Table 1
PICO criteria for the present systematic review.

文章之PICO搜尋，與病人之PICO相符合

| PICO | Descriptors |
|-----------------|---|
| Participants: P | Adult subjects with type 2 diabetes |
| Intervention: I | Cinnamon OR Cinnamons OR Cinnamomum verum OR Cinnamomum zeylanicum OR Cinnamomum OR Ceylon cinnamon |
| Comparison: C | Placebo group |
| Outcome: O | Weight OR "BMI" OR Body mass index OR Quetelet OR Glucose OR Sugar OR FBS OR Insulin OR HOMA-IR OR "insulin resistance" OR QUICKI OR "insulin sensitivity" OR HbA1c OR Diabetes OR Diabetic OR DM |

§ Section A: Are the results of the review valid?

2. Did the authors look for the right type of papers?

作者是否收納適當的研究類型？

 YES NO CAN'T TELL

| Inclusion | Exclusion |
|--|---|
| <p>The primary outcome for the present study was the effects of supplementation with cinnamon on FBS concentrations. Therefore, when any paper did not report this parameter, even if it reported other glycaemic status and anthropometric indices, it was not included. Other inclusion criteria were as follows: (i) randomized clinical trials (parallel or cross-over design), (ii) existence of a placebo group, (iii) included adult subjects, (iv) examined the effects of cinnamon on at least FBS at baseline and at the end of the trial in both intervention and placebo groups, (v) examined T2DM, and (vi) examined any form of cinnamon (whole herb not effective components). Additionally, papers reported sufficient information including mean or mean differences with standard deviation (SD), standard error (SE) or 95% confidence intervals (95% CI) were included. Papers were excluded if they had any study</p> | <p>(95% CI) were included. Papers were excluded if they had any study design other than clinical trials such as animal or in vitro/In vivo studies, (ii) before-after studies, (iii) examined other types of diabetes, diseases or healthy subjects, (iv) examined effective components of cinnamon or food/beverages with added cinnamon, (v) in combination with other herbal or non-herbal ingredients, (vi) include children/adolescent (younger than 18 years old), and (vii) athletes.</p> |
| <p>欲探討肉桂cinnamon對糖尿病之功效，屬於介入型問題，本篇文獻有包含RCT的文章</p> <p>包含之項目如type 2 DM. FBG. Hb1AC均與討論之個案相關</p> | <p>排除之項目如: 含有動物實驗、其他類型的糖尿病等等</p> |

§ Section A: Are the results of the review valid?

2. Did the authors look for the right type of papers?
作者是否收納適當的研究類型？

● YES ● NO ● CAN'T TELL

Table 2
Characteristics of the included papers in the systematic review.

| Author/ Year | Location | Study design | Gender (Male/ Female) | Mean age | 5: |
|--------------------------------|-------------|--------------|-----------------------|------------|----|
| Zare et al (2018) | Iran | R/P triple | both | 52.6 | 1: |
| Zahedifar et al (2018) | Iran | R/P double | Both | 54.6 | 5: |
| Talaei et al (2017) | Iran | R/P double | Both | 57 | 3: |
| Sengsuk et al (2016) | Thailand | R/P double | Both | 57 | 9: |
| Tangvarasittichai et al (2015) | Thailand | R/P double | Both | 57 | 1: |
| Azimi et al (2014) | Iran | R/P Single | Both | 53.8 | 7: |
| Mirfeizi et al (2014) | Iran | R/P triple | Both | > 18 | 7: |
| Hasanzadeh et al (2013) | Iran | R/P double | Both | 54.3 | 7: |
| Vafa et al (2012) | Iran | R/P double | Both | 55 | 3: |
| Lu et al (2012) | China | R/P double | Both | 61 | 4: |
| Zahmatkesh et al (2012) | Iran | R/P double | Both | 55 | 5: |
| Haghighian et al (2011) | Iran | R/P double | Both | 56.8 | 6: |
| Akilen et al (2010) | England | R/P Single | Both | 55 | 5: |
| Otto et al (2010) | USA | R/P double | Both | 46 | 2: |
| Blevins et al (2007) | USA | R/P double | Both | 60.8 | 5: |
| Mang et al (2006) | Germany | R/P double | Both | 63 | 6: |
| Vanschoonbeek et al (2006) | Netherlands | R/P double | Female | 62.5 | 2: |
| Khan et al (2003) | Pakistan | R/P/ double | Both | > 40 years | 2: |

Table 2
Characteristics of the included papers i

| Author/ Year | Location | Adjustment | Side effects | Type of Cinnamon | Quality score |
|--------------------------------|-------------|--------------------------------|--------------|------------------|---------------|
| Zare et al (2018) | Iran | | | | |
| Zahedifar et al (2018) | Iran | | | | |
| Talaei et al (2017) | Iran | No | No | Not clear | 3 |
| Sengsuk et al (2016) | Thailand | No | No | Not clear | 2 |
| Tangvarasittichai et al (2015) | Thailand | No | No | C. cassia | 4 |
| Azimi et al (2014) | Iran | No | No | Not clear | 5 |
| Mirfeizi et al (2014) | Iran | No | No | c.cassia | 5 |
| Hasanzadeh et al (2013) | Iran | | | | |
| Vafa et al (2012) | Iran | No | No | c.cassia | 3 |
| Lu et al (2012) | China | No | No | Not clear | 2 |
| Zahmatkesh et al (2012) | Iran | No | No | Not clear | 2 |
| Haghighian et al (2011) | Iran | No | No | Not clear | 3 |
| Akilen et al (2010) | England | No | No | Not clear | 2 |
| Otto et al (2010) | USA | Yes, covariates were not clear | No | C. cassia | 5 |
| Blevins et al (2007) | USA | Not clear | Not clear | Not clear | 2 |
| Mang et al (2006) | Germany | No | Not clear | c.cassia | 2 |
| Vanschoonbeek et al (2006) | Netherlands | No | No | Not clear | 2 |
| Khan et al (2003) | Pakistan | No | No | C. cassia | 3 |
| | | No | No | C. cassia | 1 |

有包含各種國家之研究
亞洲(伊朗. 中國. 泰國. US. UK. 德國等等)

R/P: Randomized placebo.

R/P: Randomized placebo.

§ Section A: Are the results of the review valid?

2. Did the authors look for the right type of papers?
作者是否收納適當的研究類型？

● YES ● NO ● CAN'T TELL

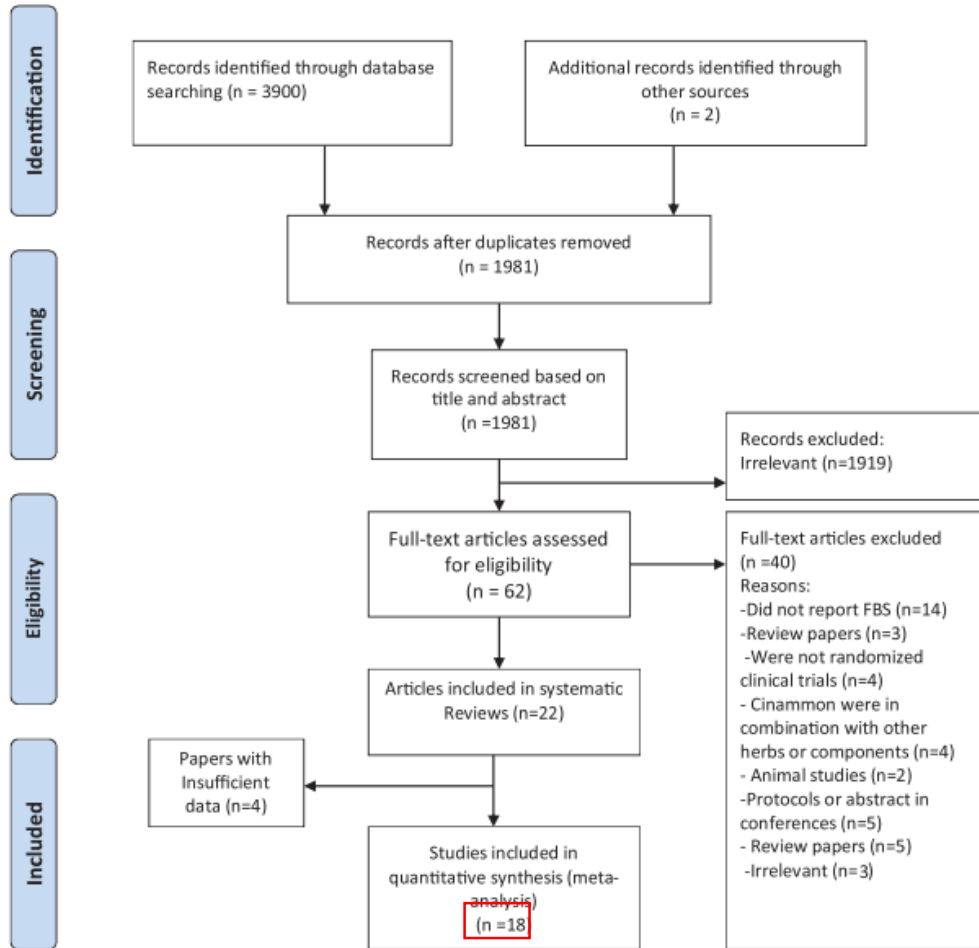


Fig. 1. Procedures of study selection.

依 PRISMA statement，作者只收納證據等級較高的 SR 文章，共有 18 篇。

優點：

- 作者排除非 RCT 為主軸之文章
- 作者搜尋了重要一級和二級資料庫。
- 有清楚列出納入及排除文章之理由
- 沒有研究設計限制。

2.1. Search strategy

The current systematic review and meta-analysis was designed and conducted according to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guideline.²⁷

At the first step, PICOS criteria were defined as represented in Table 1. In the next step, five main electronic databases including PubMed/Medline, SCOPUS, Web of Sciences, EMBASE, and the Cochrane library were searched by two independent reviewers (N.N, J.H). Search was restricted to papers published between January 2000 and 31 February 2018 with no language limitation. Details of search strategies containing both medical subject headings (MeSH) and non-medical subject heading key terms for each database are provided in Appendix S1.

§ Section A: Are the results of the review valid?

3. Do you think all the important, relevant studies were included?
作者有沒有可能遺漏掉重要且相關的研究？

YES NO CAN'T TELL

2.1. Search strategy

The current systematic review and meta-analysis was designed and conducted according to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guideline.²⁷

At the first step, PICOS criteria were defined as represented in Table 1. In the next step, five main electronic databases including PubMed/Medline, SCOPUS, Web of Sciences, EMBASE, and the Cochrane library were searched by two independent reviewers (N.N, J.H). Search was restricted to papers published between January 2000 and 31 February 2018 with no language limitation. Details of search strategies containing both medical subject headings (MeSH) and non-medical subject heading key terms for each database are provided in Appendix S1.

1. 搜尋的資料庫(大於2個)

- PubMed/Medline
- SCOPUSWeb of Sciences
- EMBASE
- the Cochrane library

2. 有使用MeSH term

3. 搜尋時沒語言限制

4. 未收錄未發表或是會議相關的文章

§ Section A: Are the results of the review valid?

4. Did the review's authors do enough to assess quality of the included studies?

作者是否有評估收納研究的品質？

YES NO CAN'T TELL

After identification of eligible papers, the two reviewers (P.Kh, K.Kh) independently extracted the following characteristics based on the pre-defined form: first author's name, publication year, country, study design, randomization, blinding, sample size (after drop out), gender, mean age, dosage, form of supplement (extract, powder, etc) and placebo, duration of the intervention, participant's status,

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.
.

were considered, not other intervention groups. Any discrepancies in the extracted characteristics were resolved by the third investigator (H.A).

1. 全文由兩位評審員 (P.Kh和K.Kh) 獨立評估
2. 若以上兩者意見相左，則諮詢第三評審員 (H.A) 來解決分歧

§ Section A: Are the results of the review valid?

4. Did the review's authors do enough to assess quality of the included studies?

作者是否有評估收納研究的品質？

YES NO CAN'T TELL

2.4. Quality assessment

The methodological quality assessment of the eligible papers was examined using the **Jadad checklist**²⁸ using two reviewers independently (N.N, K.KH). The Jaded scale contains items relevant to random assignment (2 items), blindness (2 items), and the flow of participants (1 item). **The maximum score is five.** Papers with at least 3 scores considered as high quality papers. Any discrepancies were also resolved by the third reviewer (B.L).

用Jadad score評估文章品質(quality)，其總分為5分
至少要3分以上才算品質好，本篇SR有達到其分數

3.4. Publication bias & sensitivity analysis

Funnel plot showed no publication bias for FBS and HbA1c that was confirmed with **Begg's test**. Based on Begg's test, there was no publication bias for FBS concentrations ($p = 0.28$) and HbA1c ($p = 0.78$). Besides, no publication bias was existed for body weight ($p = 0.51$) and BMI ($p = 0.52$) (Egger's regression test). Based on sensitivity analysis, excluding no clinical trial changed the pooled effect sizes.

本篇Funnel plot及Begg's tests 計算publication bias，然p值均 >0.05
[FBS concentrations ($p = 0.28$) and HbA1c ($p = 0.78$).]

§ Section A: Are the results of the review valid?

5. If the results of the review have been combined, was it reasonable to do so?

作者是否有把各個研究的結果合併起來？這樣的合併是合理的嗎？

YES NO CAN'T TELL

Heterogeneity was assessed by Cochran's Q test and the I^2 test. $I^2 > 50\%$ was assumed as high heterogeneity. To find the parameters induced heterogeneity, subgroup analysis was conducted, if possible. The possibility of subgroup analysis means the existence of at least two trials in each category of age, gender, adjustment, dosage, duration of the intervention, location, quality, and species of cinnamon. To assess the effect of each study on the pooled effect estimate, sensitivity analysis was conducted.

Potential publication bias was identified using the funnel plot, Begg's rank correlation (existence of more than 10 studies) and Egger's regression tests (existence of fewer than 10 studies). When there was a publication bias, "trim and fill" methods were used to correct the pooled estimates. All statistical analysis was performed using STATA version 11.0 (Stata Corp, College Station, TX). P values less than 0.05 were considered statistically significant.

parameters and anthropometric indices were also extracted. A random effects model with DerSimonian and Laird method was used for pooling the effect sizes.

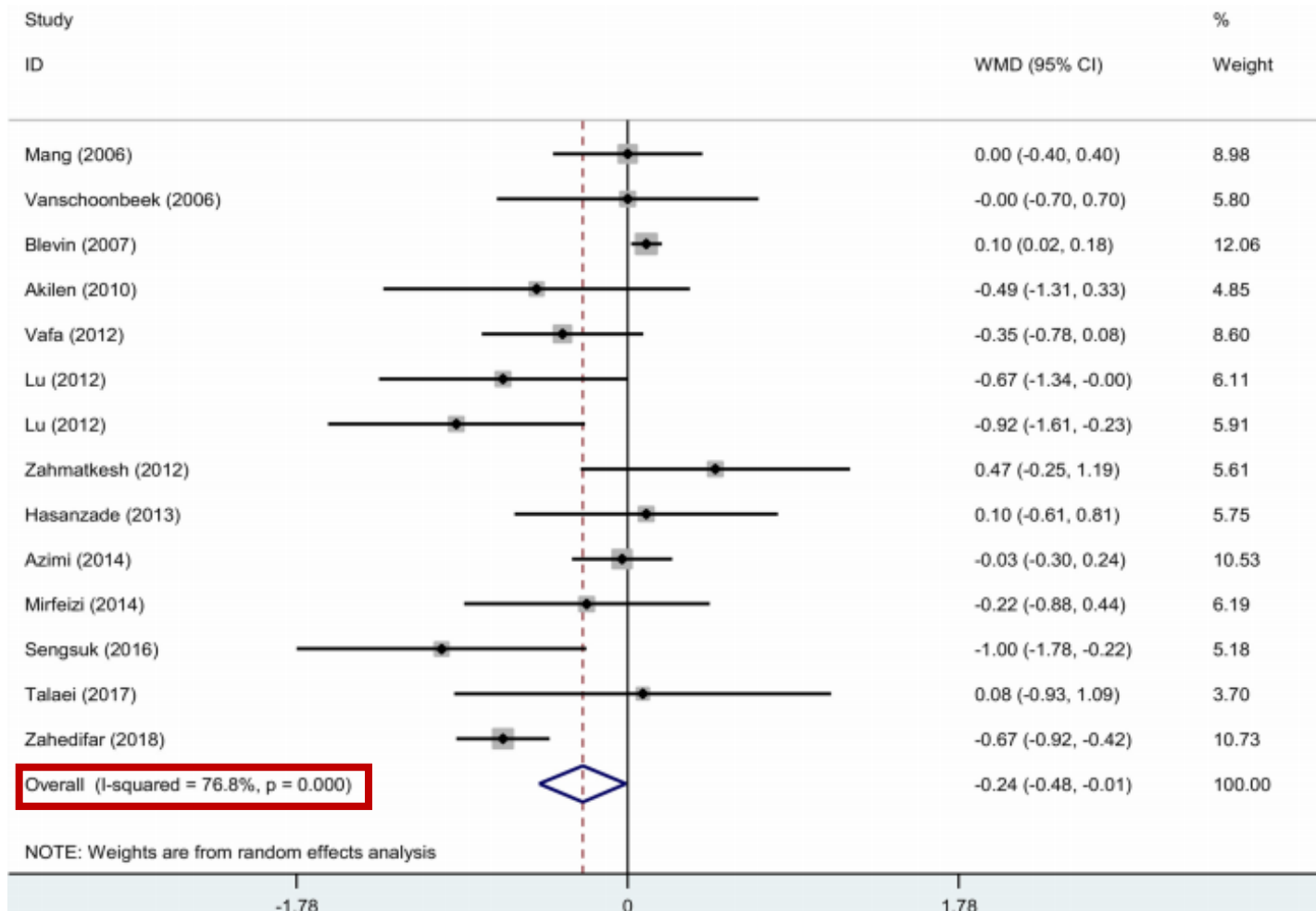
1. 使用Cochrane Q's test & I^2 test來分析研究間的異質性 (heterogeneity)。
2. 整體結果異質性大，本篇採用random-effects model進行meta-analysis是合理的(異質性 >25%)。

§ Section A: Are the results of the review valid?

5. If the results of the review have been combined, was it reasonable to do so?

作者是否有把各個研究的結果合併起來？這樣的合併是合理的嗎？

● YES ● NO ● CAN'T TELL



<cinnamon on Hb1Ac>
I²=76.8%, p=0.000
異質性高

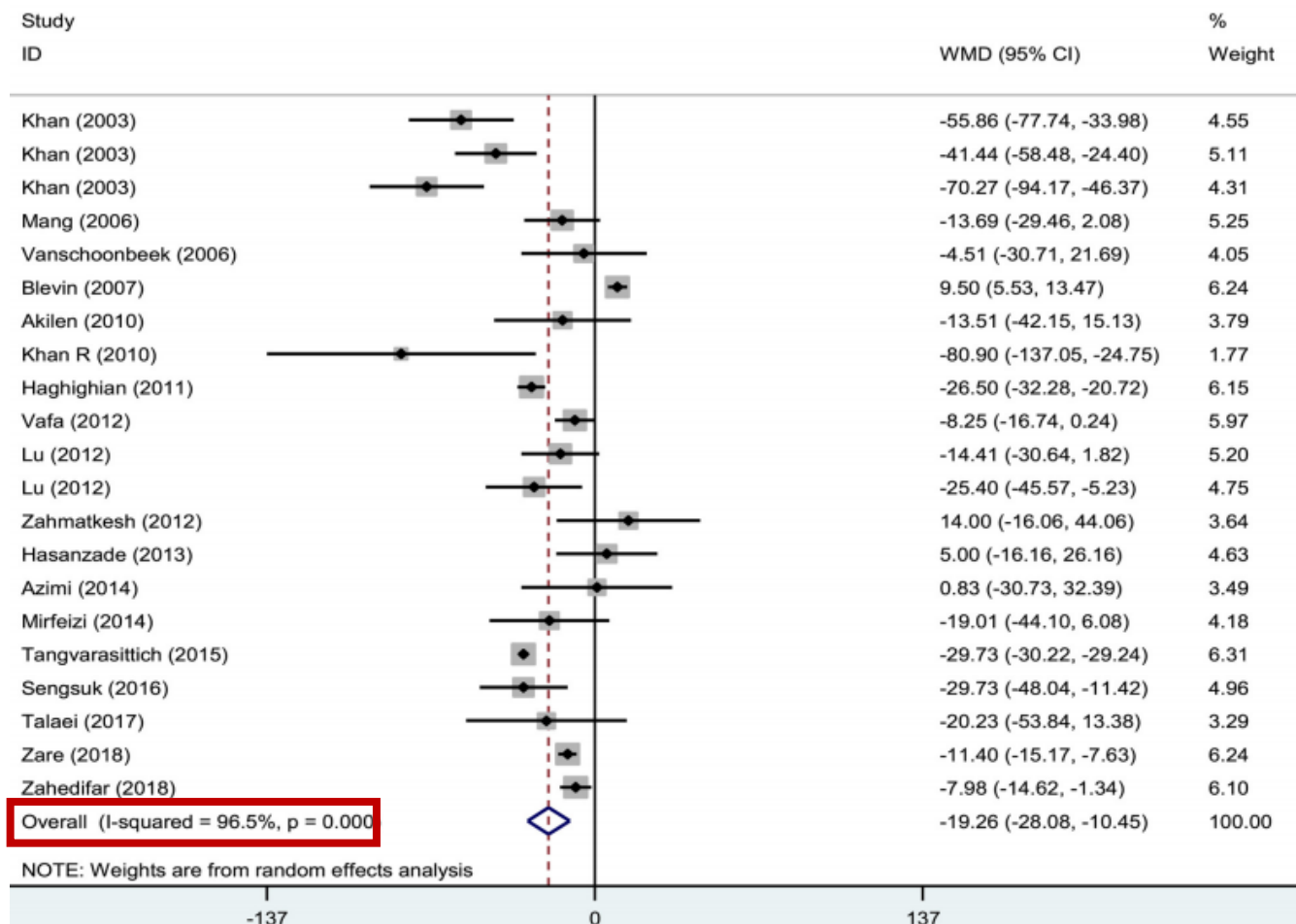
Fig. 3. Forest plot for the effects of supplementation with cinnamon on HbA1c.

§ Section A: Are the results of the review valid?

5. If the results of the review have been combined, was it reasonable to do so?

作者是否有把各個研究的結果合併起來？這樣的合併是合理的嗎？

● YES ● NO ● CAN'T TELL



<cinnamon on FBS>
I²=96.5%, p=0.000
異質性高

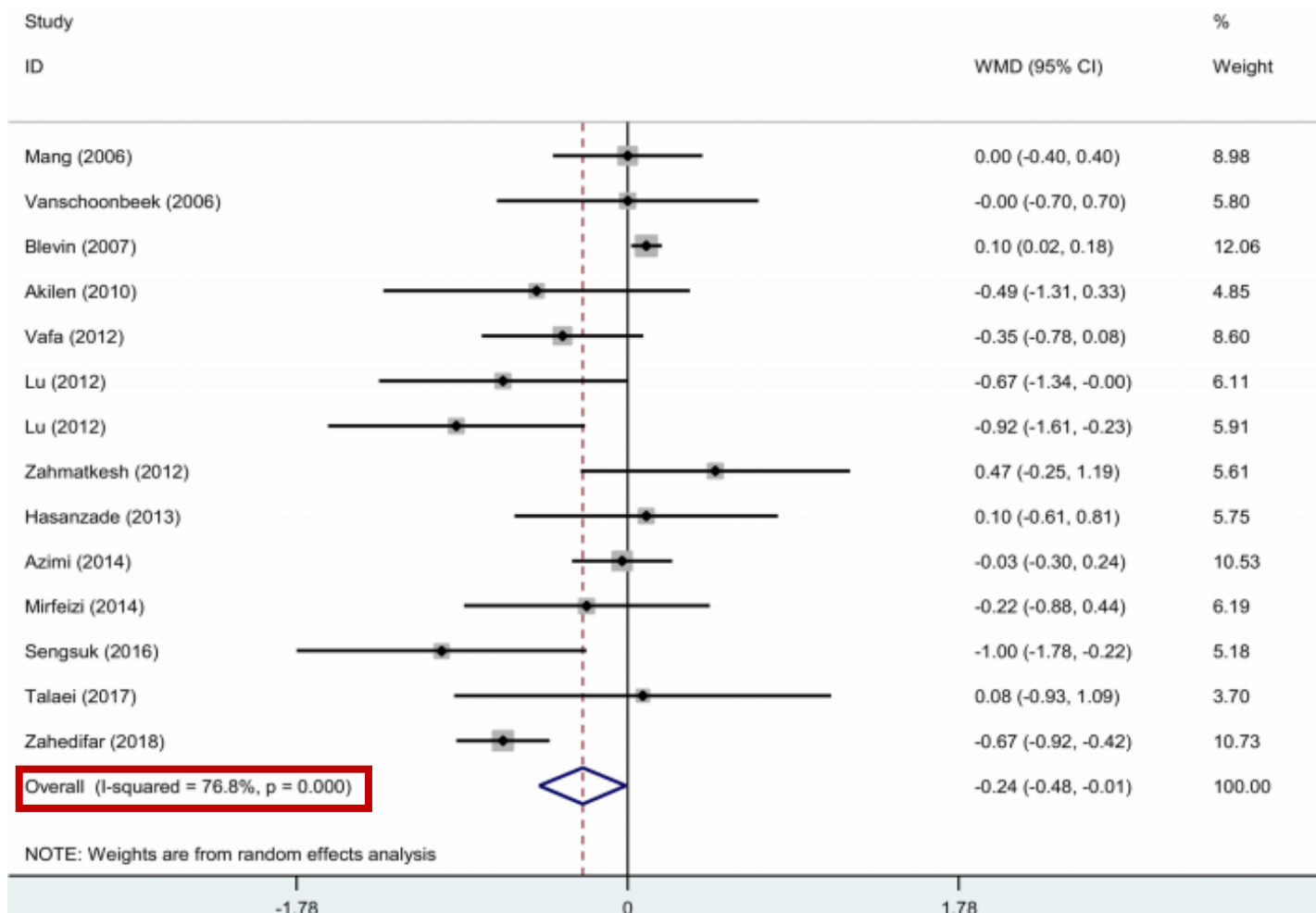
Fig. 2. Forest plot for the effects of supplementation with cinnamon on fasting blood sugar.

§ Section A: Are the results of the review valid?

5. If the results of the review have been combined, was it reasonable to do so?

作者是否有把各個研究的結果合併起來？這樣的合併是合理的嗎？

● YES ● NO ● CAN'T TELL



<cinnamon on Hb1Ac>
I²=76.8%, p=0.000
異質性高

Fig. 3. Forest plot for the effects of supplementation with cinnamon on HbA1c.

§ Section B: What are the results?

6. What are the overall results of the review? 這篇回顧呈現什麼結果？

Results: Finally, 18 studies were included in the meta-analysis. Supplementation with cinnamon reduced FBS by -19.26 mg/dL (95% CI: -28.08 , -10.45 ; $I^2: 96.5\%$; $p = 0.0001$) compared to placebo. However, the effects of cinnamon on HbA1C (-0.24% ; 95% CI: -0.48 , -0.01 ; $I^2: 76.8\%$, $p = 0.0001$), body weight (-0.46 , 95%CI: -1.87 , 2.30 ; $I^2: 0\%$; $p = 0.79$), body mass index (WMD: -0.05 kg/m²; 95% CI: -0.52 , 0.42 ; $I^2: 0\%$; $p = 0.91$), and waist circumference (WMD: -0.53 cm; 95% CI: -3.96 , 2.81 ; $I^2: 0\%$; $p = 0.66$) were not significant. Additionally, cinnamon did not change the serum levels of insulin and insulin resistance significantly.

Conclusion: Supplementation with cinnamon can reduce serum levels of glucose with no changes in other glycemic parameters and anthropometric indices. However, due to high heterogeneity findings should be interpreted with great caution.

7. How precise of the results? 結果精準嗎？

Cinnamon 在降低糖尿病指標如 FBS 及 Hb1Ac 均有顯著差異，然因為異質性高且信賴區間大，所以還需要更深入的研究探討

見以下之投影片

Cinnamon 降低 FBS

-19.26 mg/dL (95% CI: -28.08, -10.45; I²:96.5%; p = 0.0001)

整體來看，在95%信賴區間p值達顯著差異；在分組分析中有特別列出亞洲族群其信賴區間為17.63，寬度較寬

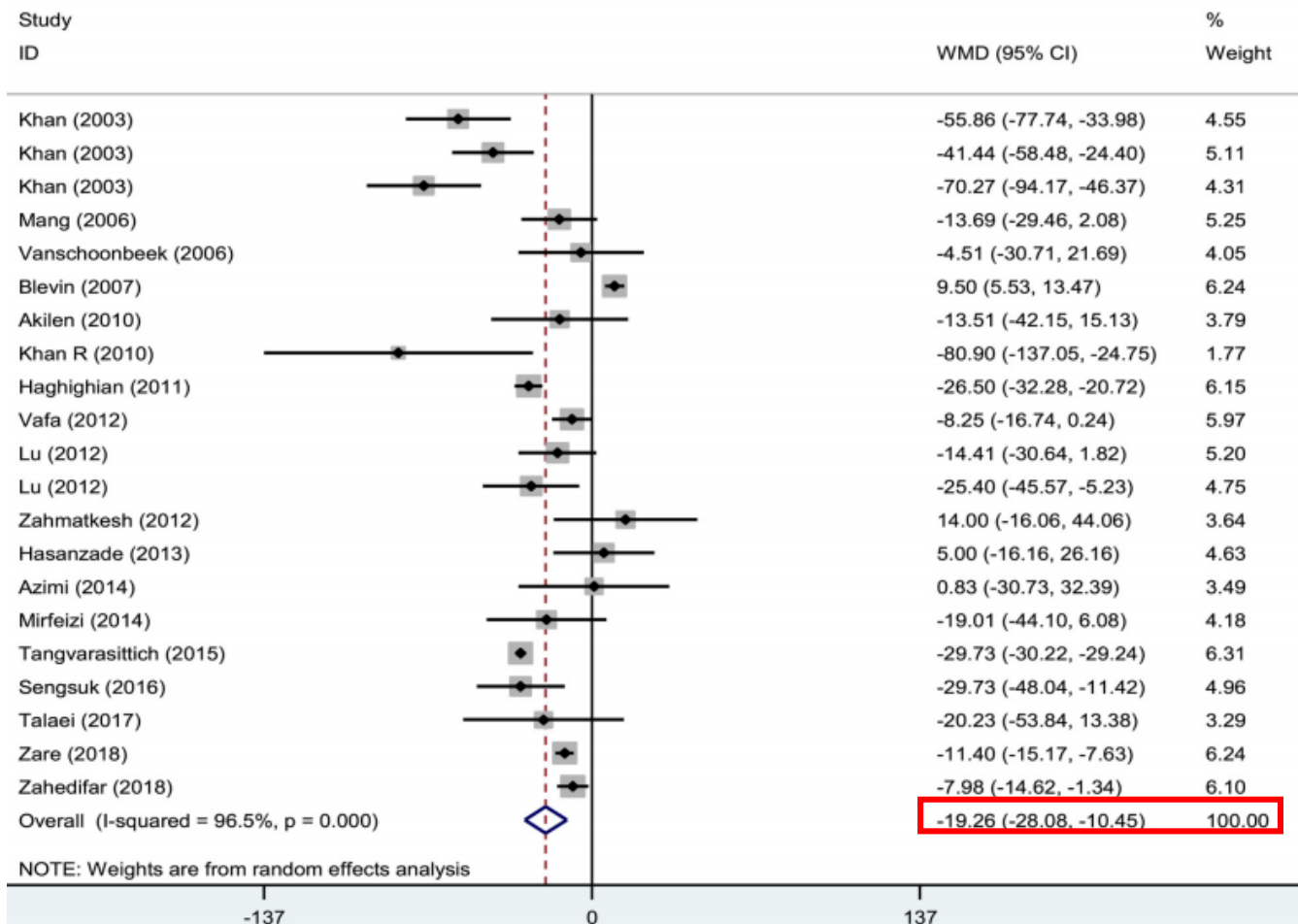


Fig. 2. Forest plot for the effects of supplementation with cinnamon on fasting blood sugar.

Table 3

Subgroup analysis for the effects of cinnamon on fasting blood sugar in patients with type 2 diabetes.

| Variables | No. study | Pooled effect size (95% CI) | I ² (%) | P heterogeneity |
|---|-----------|-----------------------------|--------------------|-----------------|
| Fasting blood sugar | | | | |
| Blindness | | | | |
| Double | 13 | -13.83 (-25.29, -2.37) | 97.1 | 0.0001 |
| Single | 3 | -16.75 (-55.64, 22.13) | 75 | 0.01 |
| Adjustment | | | | |
| Yes | 5 | -14.42 (-29.33, 0.49) | 45.1 | 0.12 |
| No | 13 | -19.89 (-29.83, -9.95) | 97.2 | 0.0001 |
| Diet | | | | |
| Yes | 4 | -19.86 (-35.47, -4.26) | 67.9 | 0.02 |
| No | 14 | -19.21 (-28.13, -10.29) | 91.6 | 0.0001 |
| Location | | | | |
| Asia | 14 | -22.32 (-29.75, -14.89) | 92.1 | 0.0001 |
| Non-Asia | 3 | -11.66 (-23.8, 0.56) | 0 | 0.83 |
| Age (year) | | | | |
| ≤ 56 | 7 | -20.57 (-32.73, -8.42) | 86 | 0.0001 |
| > 56 | 9 | -16.15 (-29.97, -2.33) | 97.8 | 0.0001 |
| Dosage (g/day) | | | | |
| ≤ 1.8 | 5 | -13.56 (-27.92, 0.79) | 94.2 | 0.0001 |
| > 1.8 | 14 | -21.55 (-29.37, 13.73) | 86.5 | 0.0001 |
| Form | | | | |
| Powder | 15 | -18.98 (-29.06, -8.90) | 97.2 | 0.0001 |
| Extract | 2 | -16.76 (-26.6, -6.89) | 0 | 0.62 |
| BMI at baseline (kg/m²) | | | | |
| ≤ 29 | 7 | -9.95 (-24.19, 4.28) | 95.7 | 0.0001 |
| > 29 | 6 | -15.81 (-28.53, -3.09) | 84.8 | 0.0001 |
| Study quality | | | | |
| < 3 | 8 | -23.48 (-36.75, 10.20) | 94.9 | 0.0001 |
| ≥ 3 | 10 | -15.21 (-26.17, -4.26) | 92.5 | 0.0001 |

Cinnamon 降低 Hb1Ac

-0.24%; (95%CI: -0.48, -0.01; I²: 76.8%, p = 0.0001)

整體來看，在95%信賴區間p值達顯著差異

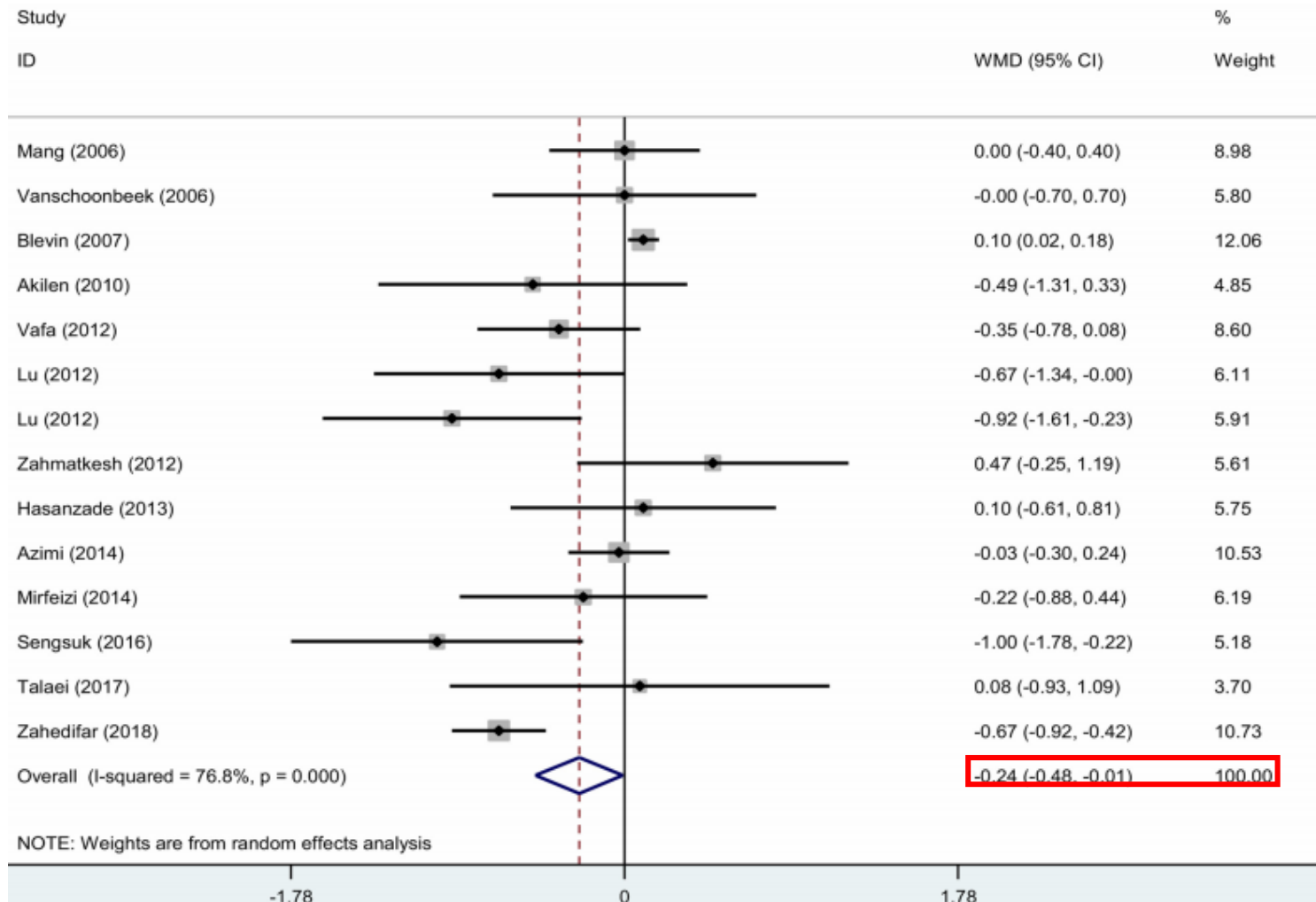


Fig. 3. Forest plot for the effects of supplementation with cinnamon on HbA1c.

然而整體而言，Cinnamon 在降低 BMI (-0.46 , 95% CI: -1.87 , 2.30 ; I^2 : 0%; $p = 0.79$)
 及腰圍 (-0.05 kg/m²; 95% CI: -0.52 , 0.42 ; I^2 : 0%; $p = 0.91$)
 均沒有達顯著差異

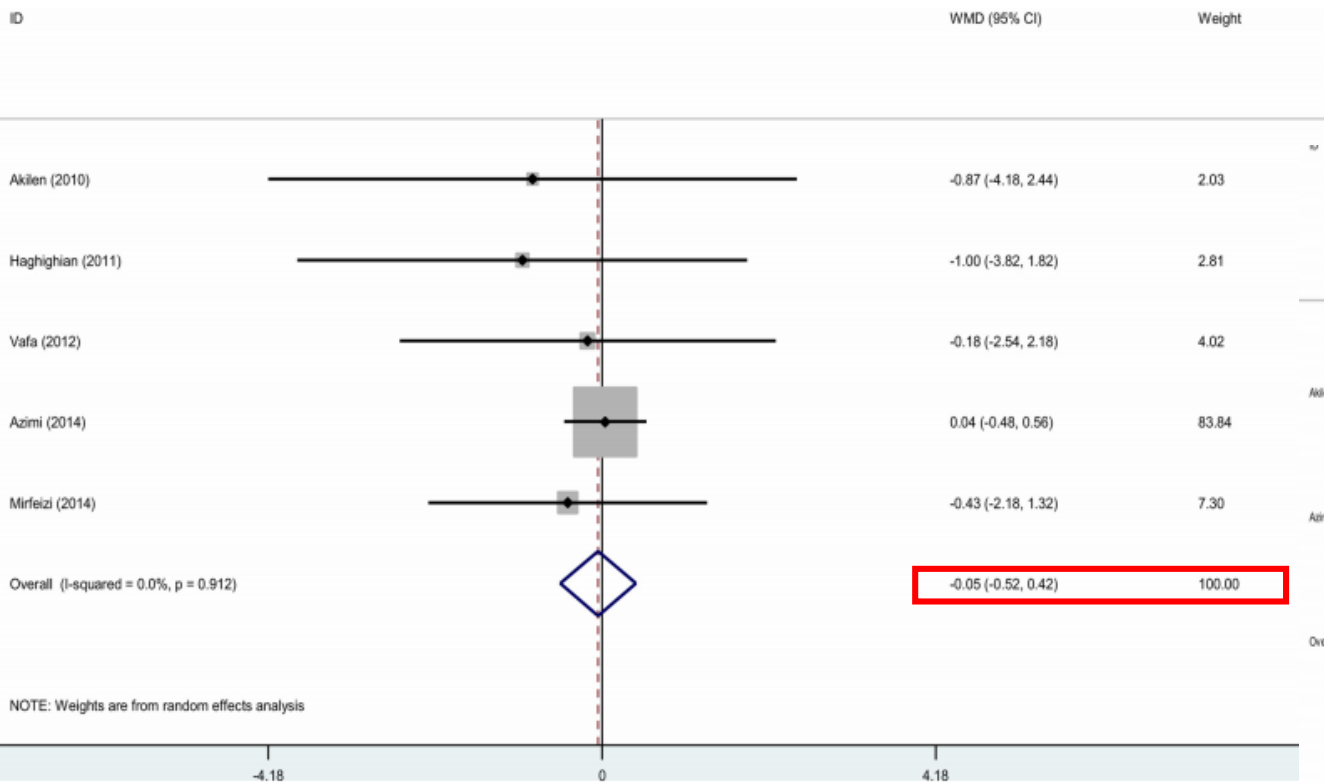


Fig. 5. Forest plot for the effects of supplementation with cinnamon on body mass index.

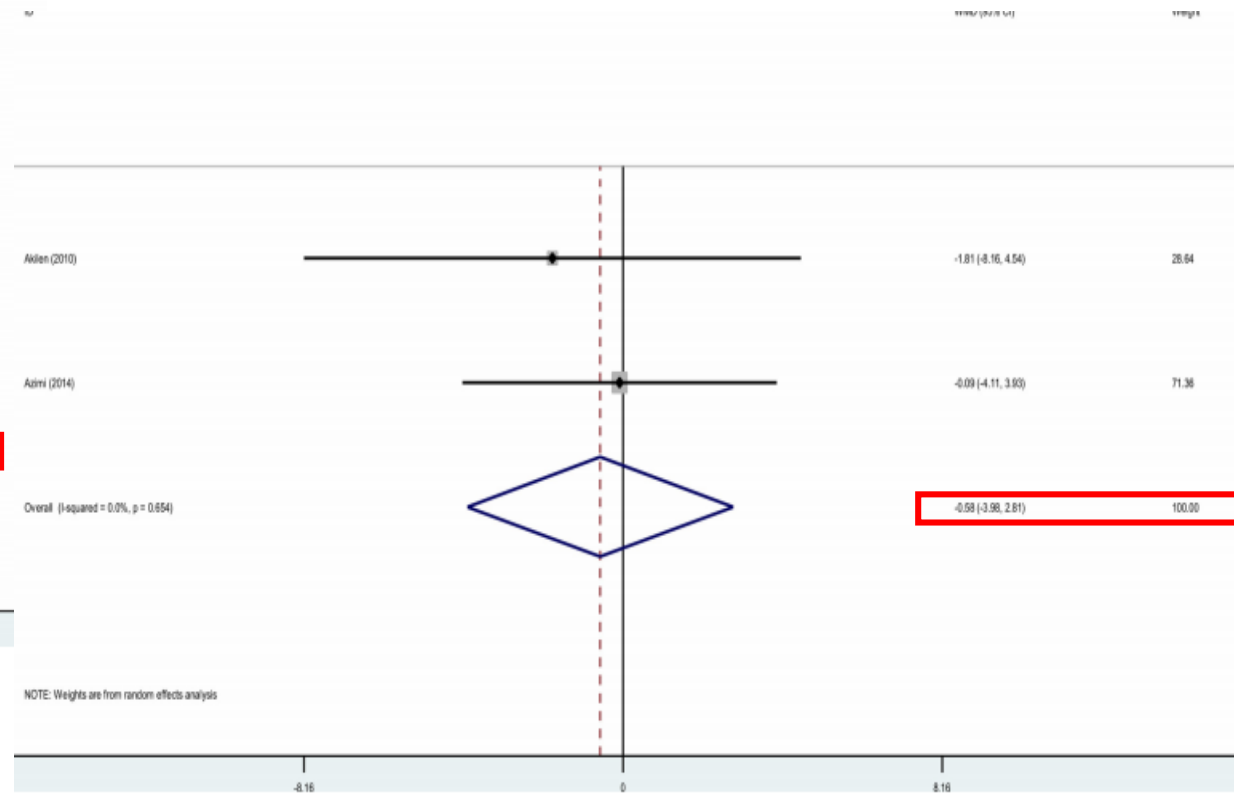


Fig. 6. Forest plot for the effects of supplementation with cinnamon on waist circumference.

§ Section C: Will the results help locally?

8. Can the results be applied to the local population?

此研究是否可應用到你的病患？

● YES ● NO ● CAN'T TELL

- 文獻研究分析是討論糖尿病病人給肉桂的影響、且收錄的內容平均年齡層介於 40~60 歲且亞洲族群佔多數(13篇)。大致符合本題目的背景，故可應用到病患身上。

Characteristics of the included papers in the systematic review.

| Author/ Year | Location | Study design | Gender (Male/ Female) | Mean age | Sample size | Dosage (g/ day) | Duration (day) | Form | Adjustment | Side effects | Type of Cinnamon | Quality score |
|--------------------------------|-------------|--------------|-----------------------|------------|-------------|-----------------|----------------|-----------------|------------------------------------|---------------------------|------------------|---------------|
| Zare et al (2018) | Iran | R/P triple | both | 52.6 | 138 | 1 | 90 | powder | No | No | Not clear | 3 |
| Zakaria et al (2015) | Iran | R/P double | both | 54.6 | 70 | 2 | 90 | powder | No | No | Not clear | 2 |
| Talei et al (2012) | Iran | R/P double | both | 57 | 93 | 3 | 90 | powder | No | No | c.cassia | 4 |
| Sengul et al (2012) | Thailand | R/P double | both | 57 | 120 | 1.5 | 60 | powder | No | No | Not clear | 5 |
| Tangvarasittichai et al (2015) | Thailand | R/P double | Both | 57 | 106 | 1.5 | 60 | powder | No | No | c.cassia | 5 |
| Azimi et al (2014) | Iran | R/P Single | Both | 53.8 | 79 | 3 | 56 | powder | Yes/ covariates were not mentioned | No | Not clear | 3 |
| Mirfakhri et al (2014) | Iran | R/P triple | both | > 18 | 72 | 1 | 90 | powder | Yes/ Baseline value | Yes/ Skin Allergy (n = 1) | Not clear | 4 |
| Hasanzadeh et al (2013) | Iran | R/P double | both | 54.3 | 70 | 1 | 60 | powder | No | No | c.cassia | 3 |
| Vafa et al (2012) | Iran | R/P double | Both | 55 | 37 | 3 | 56 | powder | No | No | Not clear | 2 |
| Lu et al (2012) | China | R/P double | Both | 61 | 43 | 0.12 | 91 | extract | No | No | Not clear | 2 |
| Zahmatkesh et al (2012) | Iran | R/P double | Both | 55 | 55 | 2 | 56 | powder | No | No | Not clear | 3 |
| Haghighian et al (2011) | Iran | R/P double | Both | 56.8 | 60 | 1.5 | 90 | powder | No | No | Not clear | 2 |
| Akilen et al (2010) | England | R/P Single | Both | 55 | 50 | 1 | 90 | powder | Yes, covariates were not clear | No | C. cassia | 5 |
| Otto et al (2010) | USA | R/P double | Both | 46 | 22 | 0.5 | 84 | Aqueous extract | Not clear | Not clear | Not clear | 2 |
| Blevins et al (2007) | USA | R/P double | Both | 60.8 | 57 | 1 | 90 | powder | No | Not clear | c.cassia | 2 |
| Mang et al (2006) | Germany | R/P double | Both | 63 | 65 | 3 | 120 | powder | No | No | Not clear | 2 |
| Vanschoonbeek et al (2006) | Netherlands | ?R/P double | Female | 62.5 | 25 | 1.5 | 42 | powder | No | No | C. cassia | 3 |
| Khan et al (2003) | Pakistan | R/P/ double | Both | > 40 years | 20 | 1 | 40 | powder | No | No | C. cassia | 1 |

● 年齡 ● 性別 ● 種族 ● 共病 ● 疾病嚴重度
● 在臺灣可行 ● 符合 ● 不符合

§ Section C: Will the results help locally?

9. *Were all clinically important outcomes considered?*
是否所有重要的臨床結果都被考量到？

YES NO CAN'T TELL

- Adverse effects
- FBS
- HbA1c
- body weight
- BMI
- waist circumference
- cost

有評估 無評估

§ Section C: Will the results help locally?

10. Are the benefits worth the harms and costs?

這些好處隨之而來的傷害和花費是否值得？

● YES ● NO ● CAN'T TELL

| 項目 | 優點 | 缺點 | 沒顯著影響 |
|----------|--|--|--|
| Cinnamon | <ul style="list-style-type: none"> Adverse effects FBS | <ul style="list-style-type: none"> cost
(以漢方養身堂為例
特級135元/50克
每天補充2克為例
每日花費5.4元) | <ul style="list-style-type: none"> HbA1c body weight BMI waist circumference |

綜合評讀結果

| | 問題 | 結果 |
|-----|-------------------|---|
| 有效性 | 1 清楚明確的問題？ | <input checked="" type="radio"/> YES <input type="radio"/> NO <input type="radio"/> UNCLEAR |
| | 2 收納適當的研究類型？ | <input checked="" type="radio"/> YES <input type="radio"/> NO <input type="radio"/> UNCLEAR |
| | 3 包含所有重要、相關的研究？ | <input checked="" type="radio"/> YES <input type="radio"/> NO <input type="radio"/> UNCLEAR |
| | 4 評估收納研究的品質？ | <input checked="" type="radio"/> YES <input type="radio"/> NO <input type="radio"/> UNCLEAR |
| | 5 是否合併？合併的合理性？ | <input checked="" type="radio"/> YES <input type="radio"/> NO <input type="radio"/> UNCLEAR |
| 重要性 | 6 適當的呈現結果？ | <input checked="" type="radio"/> YES <input type="radio"/> NO <input type="radio"/> UNCLEAR |
| | 7 結果精準嗎？ | <input checked="" type="radio"/> YES <input type="radio"/> NO <input type="radio"/> UNCLEAR |
| 應用性 | 8 是否可以應用到你的病患？ | <input checked="" type="radio"/> YES <input type="radio"/> NO <input type="radio"/> UNCLEAR |
| | 9 所有重要的臨床結果都被考量到？ | <input checked="" type="radio"/> YES <input type="radio"/> NO <input type="radio"/> UNCLEAR |

證據等級


Oxford Centre for Evidence-Based Medicine 2011 Levels of Evidence

| Question | Step 1
(Level 1*) | Step 2
(Level 2*) | Step 3
(Level 3*) | Step 4
(Level 4*) | Step 5 (Level 5) |
|--|---|--|---|--|---------------------------|
| How common is the problem? | Local and current random sample surveys (or censuses) | Systematic review of surveys that allow matching to local circumstances** | Local non-random sample** | Case-series** | n/a |
| Is this diagnostic or monitoring test accurate?
(Diagnosis) | Systematic review of cross sectional studies with consistently applied reference standard and blinding | Individual cross sectional studies with consistently applied reference standard and blinding | Non-consecutive studies, or studies without consistently applied reference standards** | Case-control studies, or "poor or non-independent reference standard** | Mechanism-based reasoning |
| What will happen if we do not add a therapy?
(Prognosis) | Systematic review of inception cohort studies | Inception cohort studies | Cohort study or control arm of randomized trial† | Case-series or case-control studies, or poor quality prognostic cohort study** | n/a |
| Does this intervention help?
(Treatment Benefits) | Systematic review of randomized trials or <i>n</i> -of-1 trials | Randomized trial or observational study with dramatic effect | Non-randomized controlled cohort/follow-up study** | Case-series, case-control studies, or historically controlled studies** | Mechanism-based reasoning |
| What are the COMMON harms?
(Treatment Harms) | Systematic review of randomized trials, systematic review of nested case-control studies, <i>n</i> -of-1 trial with the patient you are raising the question about, or observational study with dramatic effect | Individual randomized trial or (exceptionally) observational study with dramatic effect | Non-randomized controlled cohort/follow-up study (post-marketing surveillance) provided there are sufficient numbers to rule out a common harm. (For long-term harms the duration of follow-up must be sufficient.)** | Case-series, case-control, or historically controlled studies** | Mechanism-based reasoning |
| What are the RARE harms?
(Treatment Harms) | Systematic review of randomized trials or <i>n</i> -of-1 trial | Randomized trial or (exceptionally) observational study with dramatic effect | | | |
| Is this (early detection) test worthwhile?
(Screening) | Systematic review of randomized trials | Randomized trial | Non-randomized controlled cohort/follow-up study** | Case-series, case-control, or historically controlled studies** | Mechanism-based reasoning |

評定證據等級

GRADE Online

| | | outcome |
|------|-------------|---------|
| 研究設計 | | RCT |
| 降階 | 1. 存在誤差風險 | - |
| | 2. 結果不一致 | +++ |
| | 3. 證據不具直接性 | - |
| | 4. 結果不精準 | ++ |
| | 5. 存在發表誤差 | - |
| 升階 | 1. 效果顯著 | - |
| | 2. 降低干擾因素 | - |
| | 3. 具劑量—反應效果 | - |
| 證據等級 | | 低 |

 SDM

病人考量

| 考量因素 | 不重要(0) | 普通(1) | 重要(2) | 非常重要(3) |
|--------|--------|-------|-------|---------|
| 經濟(費用) | ● | | | |
| 治療有效性 | | | | ● |
| 副作用 | | | | ● |
| 生活品質 | | | ● | |
| 方便性 | ● | | | |

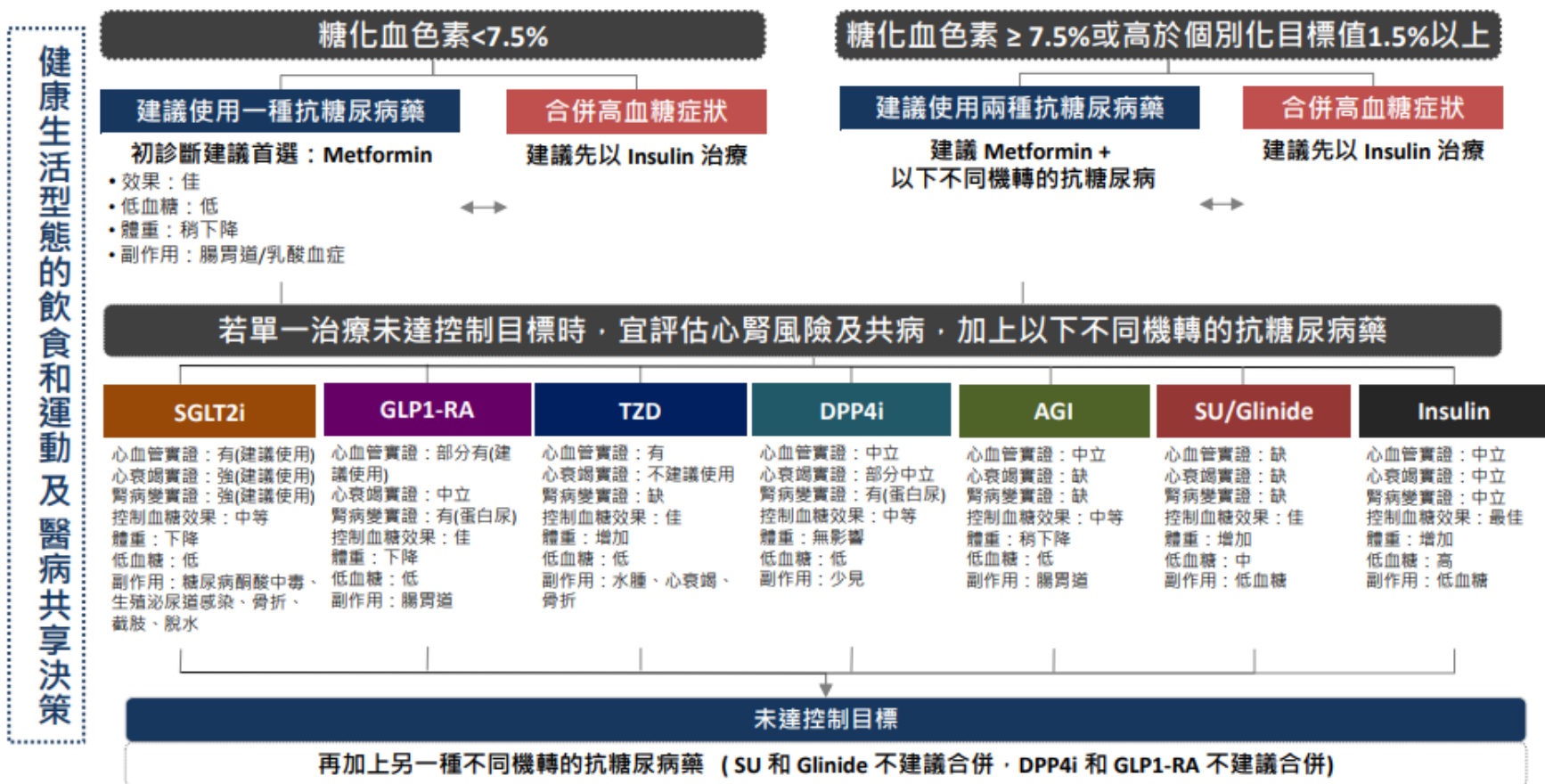
每項選擇之優缺點、風險

● 較佳 ● 普通 ● 較差

| | | 治療方式 |
|------|--------|------|
| | | 補充肉桂 |
| 考量因素 | 經濟(費用) | ● |
| | 治療有效性 | ● |
| | 副作用 | ● |
| | 生活品質 | ● |
| | 方便性 | ● |

其他糖尿病藥物治療

第 2 型糖尿病人高血糖的處理流程圖 (2020年修訂版)



健康生活方式態的飲食和運動及醫病共享決策

佳糖維 胰臟炎疑慮

Pancreatic events

Cases of **acute pancreatitis** (including hemorrhagic and necrotizing with some fatalities), chronic **pancreatitis**, and **pancreatic cancer** have been reported with use of incretin-based therapies (eg, dipeptidyl peptidase-4 [DPP-4] inhibitors, glucagon-like peptide 1 [GLP-1] receptor agonists), including sitagliptin ([Ref](#)).

Mechanism: Causality has not been firmly established ([Ref](#)). DPP-4 inhibitors indirectly stimulate GLP-1 receptors in **pancreatic** islet beta cells and exocrine duct cells which may cause an overgrowth of the cells that cover the smaller ducts, thereby resulting in hyperplasia, increased **pancreatic** weight, duct occlusion, back pressure, and subsequent acute or chronic **pancreatic** inflammation ([Ref](#)).

Risk factors:

- Patients with a prior history of **pancreatitis** may be at an increased risk for acute **pancreatitis**.
- Patients with acute **pancreatitis** due to any cause are at an increased risk for progression to recurrent acute **pancreatitis** and then to chronic **pancreatitis**; patients with chronic **pancreatitis** are at an increased risk for **pancreatic cancer** ([Ref](#)).
- Risk factors for **pancreatitis** due to any cause include, but are not limited to, hypertriglyceridemia, cholelithiasis, alcohol use, and obesity.

臨床回覆

- 根據林先生所好奇的問題
經過我們謹慎的文獻查找後可以知道
- 在高證據等級的文章，但證據品質低的文獻可以知道
目前搜尋到的證據看到雖然使用肉桂的補充沒有副作用，不論在控制空腹血糖、糖化血色素、降低體重、腰圍、BMI都沒有顯著的差異。
- 在肉桂的補充方面，可能需要自行購買。
- 在不想改變飲食和運動習慣之下，建議還是以藥物治療為主。

THANK YOU!