中醫藥治療功能性胃腸病 Chinese Medicine Treatment in Functional Gastrointestinal Disorders

卞兆祥, Zhao-xiang BIAN, MD, PhD Director, Hong Kong Chinese Medicine Clinical Research Center, Hong Kong Baptist University

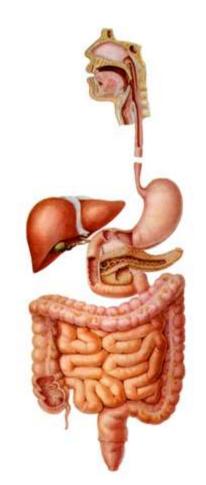
中藥研發研討會 , 10-11 Sept 2015

脾胃(消化)為後天之本



《内径》云:饮入于胃,游溢精 气,上输于脾,脾气散精,上归 于肺,通调水道,下输膀胱,水 精四布,五经并行。







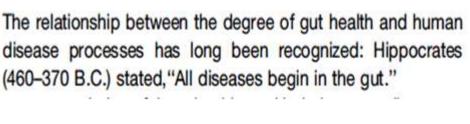
Jean Anthelme Brillat-Savarin (1755 – 1826)

"Tell me what you eat, and I will tell you what you are."

內傷脾胃, 百病由生



disease processes has long been recognized: Hippocrates (460-370 B.C.) stated, "All diseases begin in the gut."



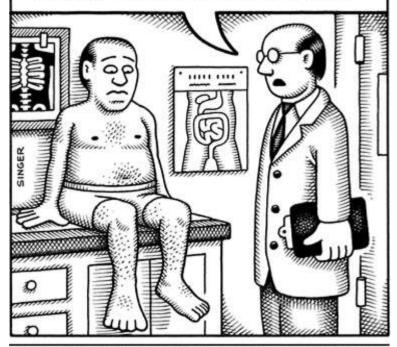


李东垣(1180-1251)《脾胃论》中指 出:"内伤脾胃,百病由生。 Treatise on the Stomach and Spleen: All diseases begin in the gut!

百病以脾胃病為首!

胃腸病的負擔

WE RAN BLOOD TESTS, DID M.R.I. SCANS, TOOK STOOL SAMPLES AND PERFORMED A COLONOSCOPY... AND WE'VE DETERMINED THAT THE "BLOATING SENSATION" YOU'RE EXPERIENCING IS "FAT."



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Common disorders of the gastrointestinal (GI) tract account for about 50 million visits per year to physicians trained in traditional allopathic or osteopathic medicine.

In the United States, the overall expenditure for complementary and alternative medicine (CAM) is in the tens of billions of dollars per year.

Aaron J. Michelfelder MD, Kit C. Lee MD and Eva M. Bading MD Primary Care: Clinics in Office Practice, 2010-06-01, Volume 37, Issue 2, Pages 25

胃腸病的種類 Gastrointestinal Disorders

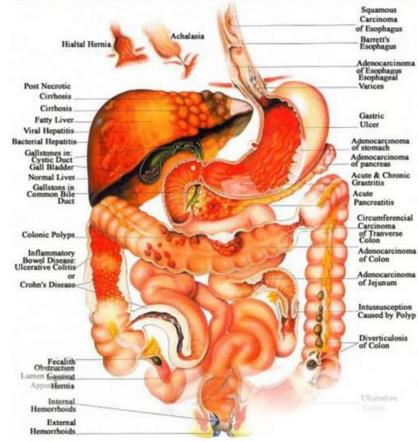
器質性病變(Organic disorders)

Ex: 消化道腫瘤(Gastrointestinal tumor)、炎症性腸病(IBD)、消化道潰瘍(peptic ulcer)......

功能性病變(Functional disorders)

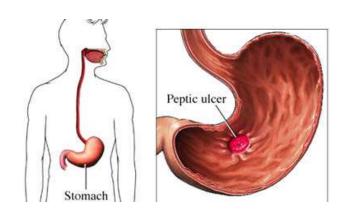
Ex: 功能性消化不良(Functional dyspepsia)、功能性便秘(Functional constipation)、腸易激綜合征(IBS),功能性腹泻,功能性腹痛等......

DISEASES OF THE DIGESTIVE SYSTEM Squamous

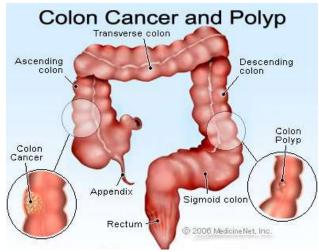


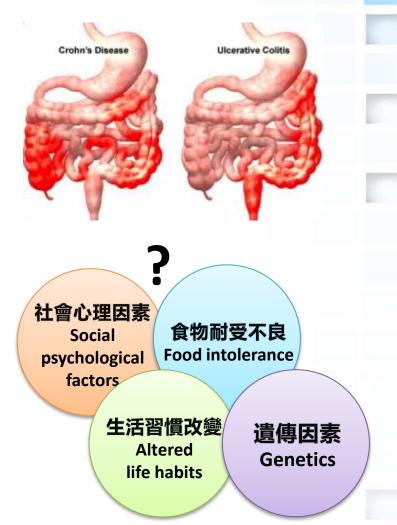
胃肠道疾病的病因远未清晰

Not fully understood about diseases causes



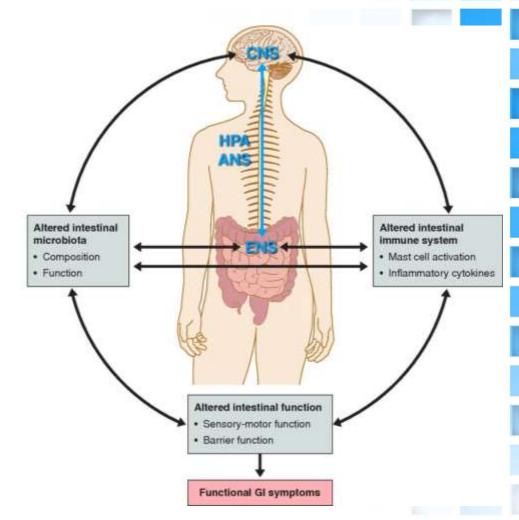
pH--Hp





功能性胃腸病的病理生理基礎 Pathophysiology of FGIDs

- 内臟運動感覺功能異常 (Sensory-motor function disorder)
- 腦腸軸功能異常(Brain-gut axis dysfunction)
- 心理應激(Psychosocial stress)
- •



功能性胃腸病的臨床表現 Clinical Manifestations of FGIDs

胃腸道外症狀

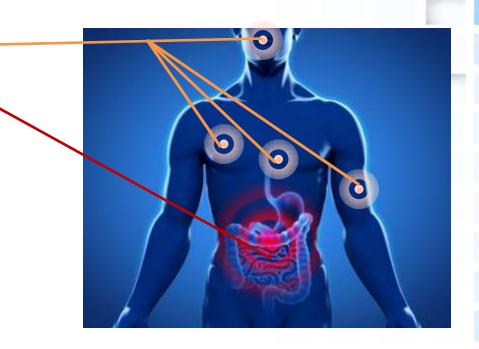
Extra-gastrointestinal symptoms

- 頭痛 headache
- 呼吸困難 dyspnea
- 心悸 palpitation
- 肌痛 muscle pain
-

胃腸道症狀

GI symptoms

- 。腹痛
- 。腹瀉或便秘
- 。脹氣
- 。消化不良



功能性胃腸病的現代治療靶點 Treatment Targets for FGIDs

對症治療

Symptomatic treatment

- 便秘 constipation
 - 瀉藥 laxative
 - 促分泌藥 prosecretory agents
- 腹瀉 diarrhea
 - 止瀉藥 antidiarrheals
 - 5-HT₃受體拮抗劑 5-HT₃ receptor antagonist
- 腹痛 abdominal pain
 - 解痙藥 antispasmodics
 - 抗抑鬱藥 antidepressants



功能性胃腸病的現代治療現狀 Modern Treatment Status for FGIDs

現有治療方法存在一定療效,但仍有待提高

Current treatment methods have certain efficacy, but the efficacy was not good enough.

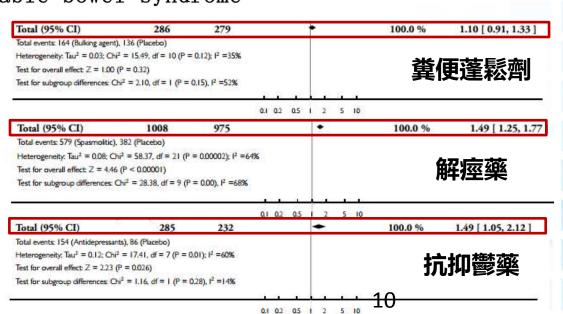
- Ex. 1 糞便蓬鬆劑、解痙藥、抗抑鬱藥治療IBS的系統綜述
- Bulking agents, antispasmodics and antidepressants for the treatment of irritable bowel syndrome

結局指標:與安慰劑相比,成

功治療的IBS患者

Outcome: Comparing nr(%) of successfully treated patients

with IBS



Placebo Antidepressive agent

功能性胃腸病的現代治療現狀 Modern Treatment Status for FGIDs

現有治療方法存在一定療效, 但仍有待提高

Current treatment methods have certain efficacy, but the efficacy was not good enough.

- Ex. 2 2014AGA指南: 肠易激综合征的药物管理
- American Gastroenterological Association Institute Guideline on the Pharmacological Management of Irritable Bowel Syndrome

僅有利那洛肽用於IBS-C的推薦等級為強, 其餘藥物的推薦等級均為弱(有條件的) Only linaclotide was strongly recommended in treatment of IBS-C, the recommendation levels of other drugs were conditional. The AGA recommends using linaclotide (over no drug treatment) in patients with IBS-C. (Strong recommendation; High-quality evidence)

Comments: Patients who place a high value on avoiding diarrhea and avoiding higher out-of-pocket expenses associated with linaclotide may prefer alternate treatments.

替代医学治疗

CAM for GI diseases

Dig Dis Sci (2015) 60:1883-1888 DOI 10.1007/s10620-014-3498-3



REVIEW

Complementary and Alternative Medicine Use Is Prevalent Among Patients with Gastrointestinal Diseases

Adelina Hung · Nancy Kang · Andrea Bollom · Jacqueline L. Wolf · Anthony Lembo

Table 1 Demographics

Characteristic	% of CAM users $(n = 118)$	% of CAM non- users $(n = 151)$
Age (mean, range)	45 (19-78)	48 (17-87)
Gender		
Male	19 %	44 %
Female	81 %†	56 % [†]
Race		
White	78 %	83 %
African-American	9 %	8 %
Hispanic	8 %	5 %
Asian/Pacific Islander	5 %	3 %

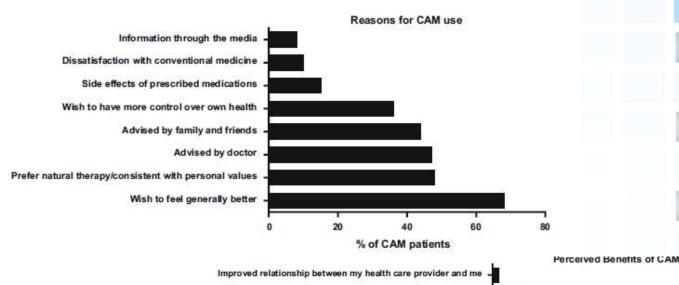
Table 1 continued

Characterist	Of the CAM to the control of the came of t	or const
Characterístic	% of CAM users $(n = 118)$	% of CAM non- users $(n = 151)$
Abdominal pain	54 %	52 %
Indigestion	26 %	22 %
Rectal bleeding	16 %	21 %
Bloating/gas	59 % [†]	40 % [†]
Difficulty or pain with swallowing	8 %	9 %
Heartburn	31 %	24 %
Did not respond	6 %	9 %
Diagnosis		
Gastroesophageal reflux (GERD)	30 %	22 %
Irritable bowel syndrome	32 %	23 %
Gallbladder disease	3 %	1 %
Liver disease	3 %	5 %
Pancreatic disease	3 %	4 %
Celiac disease	13 %	5 %
Inflammatory bowel disease	16 %	22 %
Stomach/bowel cancer	0 %	1 %
Did not respond	24 %	30 %

Associate Professor, Harvard University

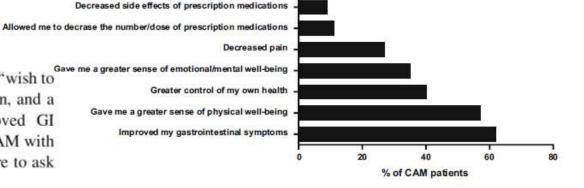
原因及其期望

Reasons and perceived benefits



symptoms between the two groups. Users reported "wish to feel generally better" as main reason for utilization, and a majority of patients (62 %) experienced improved GI symptoms. Among patients who did not discuss CAM with their physicians (30 %), they cited physician failure to ask about CAM as the major reason (82 %).

Conclusion CAM is prevalent among patients attending a GI clinic, particularly among women and those who are dissatisfied with conventional therapies and "wish to feel better." Greater awareness and understanding of CAM among GI physicians is necessary.



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概要 Outlines

- 功能性胃腸病的現代治療 Modern treatment in FGIDs
- 中醫藥是治療功能性胃腸病的良好補充 CM is a favorable supplement in FGIDs treatment
- 中醫藥治療理念有助於優化臨床診療 Concept of CM is helpful to optimizing clinical practice

中醫藥治療功能性胃腸病

Chinese Medicine Treatment in FGIDs

- 中醫藥的背景
 - 超過2000年的應用歷史
 - 独特的理論體系
 - 多元化的治療手段
- 中醫藥治療胃腸病的經驗
 - 治瀉九法
 - 經典便秘方劑:麻子仁丸、大承氣湯、 小承氣湯
- 中醫藥的優勢
 - 長期的用藥經驗
 - 治療成本低
 - 不良反少
 - _

- Background of Chinese Medicine
 - History of more than 2000 years
 - Different theoretical system
 - Various forms of treatment
- Experience of CM treatment
 - Nine methods of treating diarrhea
 - Classical prescriptions for constipation: Maziren pills, Dachengqi decoction, Xiaochengqi decoction
- Advantages of CM
 - Long-term medication experience
 - Low cost
 - Less adverse events
 - _



中醫藥治療的困境 Barrier of CM Treatment

- 截止到2015年8月,在CDSR數據庫中,僅有11篇系統性綜 述關於中醫治療胃腸病,其 中:
 - 中草藥: 9篇
 - 針灸: 2篇

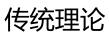
- There are only 11 SRs for CM treatment in gastroenterology in the Cochrane Database of Systematic Review up to Aug. 2015, include:
 - Chinese herbal medicine: 9
 - Acupuncture: 2

需要進行基於循證醫學的高質量中醫臨床研究

It is compulsory to conduct high-quality CM clinical trail on the foundation of evidence-based medicine

如何开展有效的药物研发?

How to develop a new drug based on TCM?



Traditional Concepts

临床需求

Clinical Needs

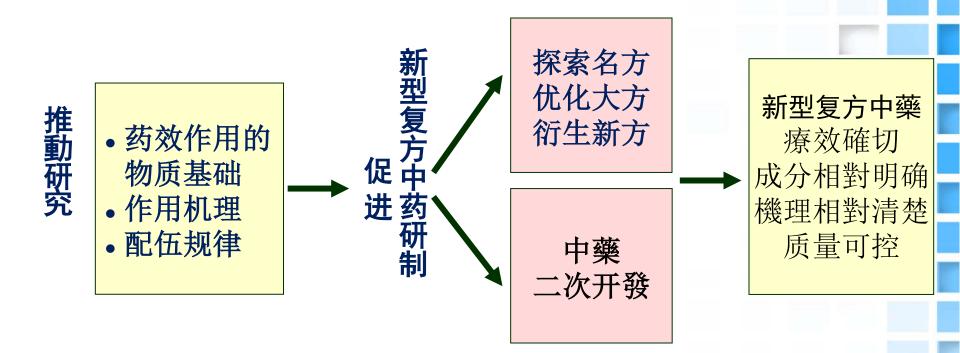
技术路径

Technical Approach

目標:

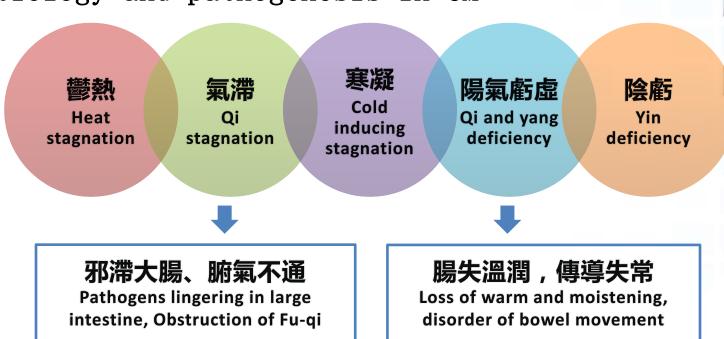
1、

新研復方中藥研發的路徑 New approaches for TCM drug development



中醫藥治療功能性便秘 CM Treatment in Functional Constipation

- 中醫病因病機
- Etiology and pathogenesis in CM



便秘 Constipation

中醫藥治療功能性便秘 CM Treatment in Functional Constipation

• 中醫治則治法

Deficiency

pattern

• Therapeutic principles and methods in CM

意證 Sthenia pattern 本部分主 Eliminating pathogens at first 热、冷、气秘分別以泻热、温散、理气之法 Purging heat, warming and dissipating, and regulating qi for heat, cold, and qi constipation, respectively *** 「本部分主 「本語のでは、 「本語

依阴阳气血亏虚,主用滋阴养血、益气温阳之法

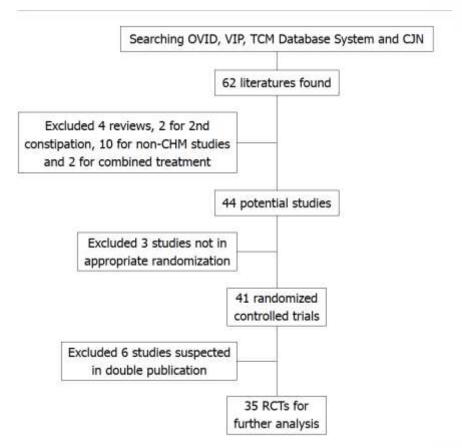
Nourishing yin and blood, and invigorating gi and warming

yang according to the deficiency of qi, blood, yin and yang

Relieved after vital

energy abundance

Systematic review of Chinese herbal medicine for functional constipation



Although there are many Chinese herbal medicine (CHM) interventions available, and some have been verified by clinical trials, their efficacy and safety are still questioned by both patients and health care providers worldwide.

麻子仁丸治療功能性便秘 MaZiRenWan for Functional Constipation

- 研究一: 劑量優化研究
 - 為期18周的前瞻性研究
 - 單盲
 - 劑量對照
 - 研究時期: 10/2006-10/2007

- Study 1: Optimal Dose Determination
 - Prospective 18wk study
 - Single blinded
 - Dosage controlled
 - Study period: 10/2006-10/2007

MZRW 2.5g bid (LD) (n=32)

Run-in

MZRW 5.0g bid (MD) (n=32)

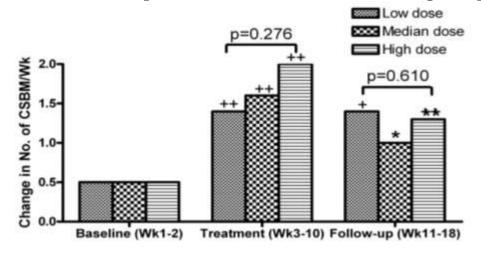
Follow-up

MZRW 7.5g bid (HD) (n=32)

0 2 10 18 Time(Week)

麻子仁丸治療功能性便秘 MaZiRenWan for Functional Constipation

- 高劑量組對於改善完全自主排便次數、排便相關症狀評分及便秘總體情況評分均明顯優於其他兩組(P<0.05)
- HD group showed benefit in terms of increased CSBM, constipation-related symptoms and global symptom improvement when compared with other two groups (P<0.05)

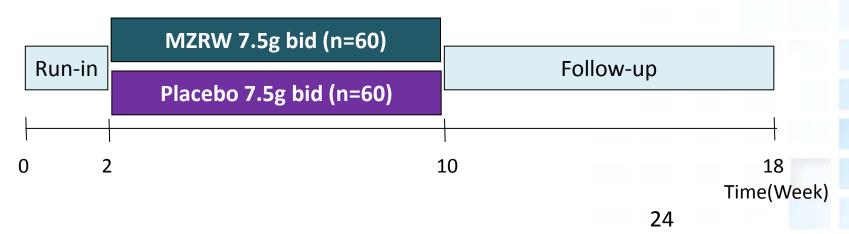


Pairwise comparisons were performed of each treatment group with its baseline: *p<0.05; **p<0.001; *p<0.005; **p<0.001.

麻子仁丸治療功能性便秘 MaZiRenWan for Functional Constipation

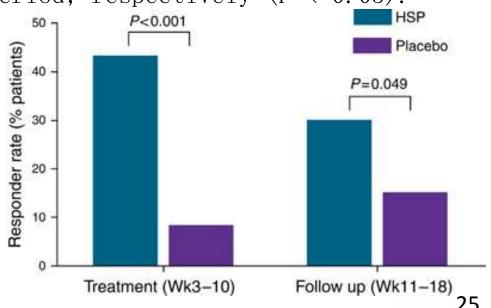
- 研究二: 隨機安慰劑對照 研究
 - 為期18周的前瞻性研究
 - 雙盲
 - 安慰劑對照
 - 研究時期: 07/2008-06/2009
 - 註冊(ID: NCT00741936)

- Study 2: Randomized
 Placebo-controlled Trial
 - Prospective 18wk study
 - Double blinded
 - Placebo controlled
 - Study period: 07/2008-06/2009
 - Registration (ID: NCT00741936)

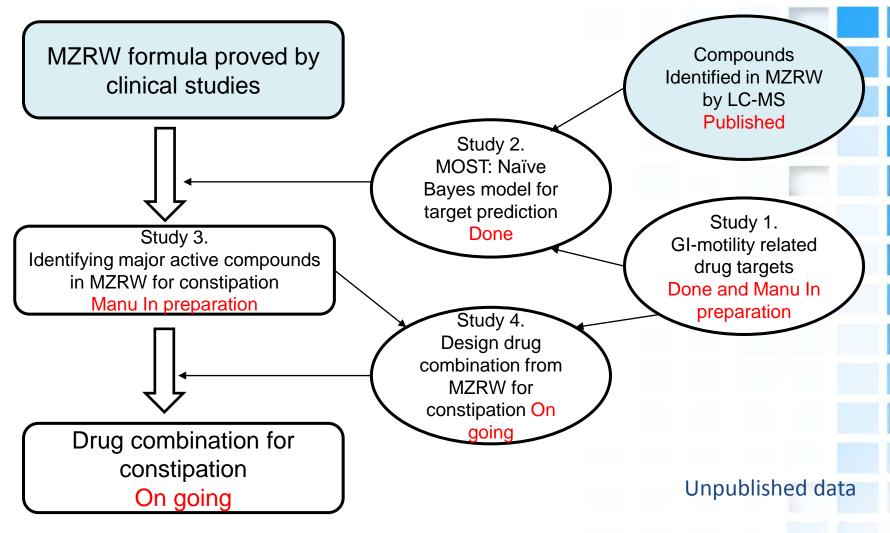


麻子仁丸治療功能性便秘 MaZiRenWan for Functional Constipation

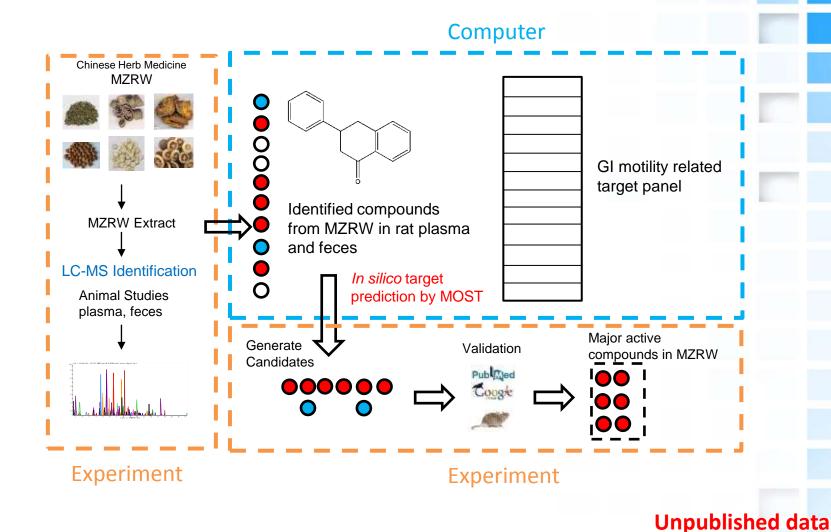
- 完全自主排便次數的反應率在治療組和安慰劑組在八周治療期間分別為43.3%和 8.3%,而在八周隨訪期則分別為30.0%和 15.0 (P < 0.05)
- Responder rates for the MZRW and placebo groups were 43.3% and 8.3 % during treatment and 30.0 and 15.0 % in the follow-up period, respectively (P < 0.05).



麻子仁丸治療功能性便秘在研内容 On going studies of MZRW for constipation



Major approaches for identifying the major active compounds of MZRW by combined approach



麻子仁丸研究的思考

- 疾病的针对性
- 临床需求的紧迫性
- 循证证据可获得性
- 注册的可能性
- 新型中藥與二次開發
 - ▶ 療效確切
 - > 成分相對明确
 - > 機理相對清楚
 - ▶ 质量可控



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中醫藥治療理念

Treatment Concept of Chinese Medicine

- 整體觀念
- Treatment based on holism concept

結構不可分割
Indivisible structure

功能相互協調 Cooperation in function

病理相互影響 Interaction in pathology

與自然環境的統一性 Unify of nature

與社會環境的統一性 Unify of society

整體觀念

Holism concept

人與外環境的統一性

人體是一個有機整體

Organic whole of

human body

Unity of human and environment

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整體觀念與臨床實踐

Holism Concept and Clinical Practice

整體觀念 Holism Concept

病理上相互影響
Interaction in pathology

與自然環境的統一性 Unify of nature

與社會環境的統一性 Unify of society

臨床實踐 Clinical Practice

干預合併疾病
Treating combined
disease

飲食及生活方式干預
Dietary and lifestyle
modification

心理及行為療法 Psychological and behavior therapy 例: 腸易激綜合征的綜合管理

Ex. Comprehensive Management of IBS

對症治療

Symptomatic treatment

飲食調整

Dietary modification

- 避免不規律飲食
- Avoid irregular diet

心理療法

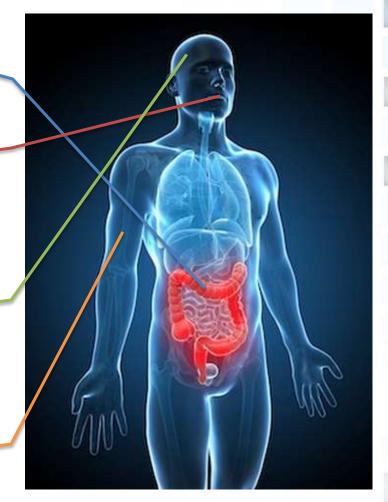
Psychological therapy

- 避免焦慮情緒
- Avoid anxiety

生活方式干預

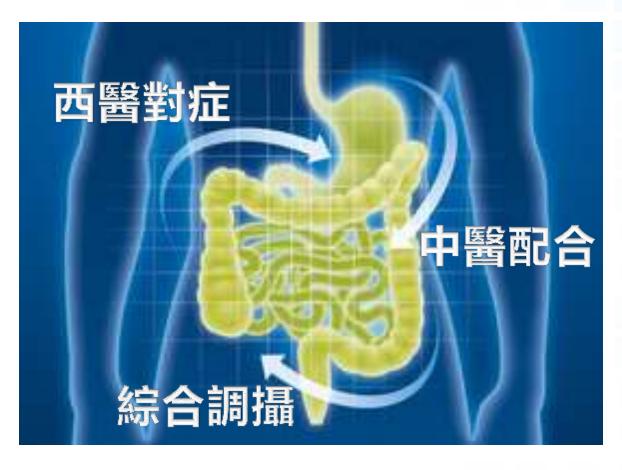
Lifestyle intervention

- 合理運動
- Proper physical exercise



綜合治療理念在藥物設計中必須體現!

未來展望 Future Expectation



有效的治療藥物,成為健康生活調整的一個環節,守護健康!