

Herbal Remedies for Constipation-Predominant Irritable Bowel Syndrome: A Systematic Review

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ADMINISTRATIVE INFORMATION**Support** - This study received no external funding.**Review Stage at time of this submission** - Completed but not published.**Conflicts of interest** - None declared.**INPLASY registration number:** INPLASY202380108**Amendments** - This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 25 August 2023 and was last updated on 25 August 2023.**INTRODUCTION**

Review question / Objective To analyze the efficacy of various herbal remedies in the management of symptoms in patients with constipation-predominant irritable bowel syndrome (IBS-C).

Rationale In recent years, the exploration of complementary and alternative therapies has gained momentum, with herbal remedies emerging as potential candidates for managing IBS-C symptoms. By consolidating the available evidence, our review aims to provide valuable guidance for healthcare practitioners and patients seeking evidence-based approaches to managing IBS-C. Additionally, we identify potential areas of further research to address the limitations of the current literature and enhance the understanding and application of herbal remedies in the context of IBS-C. Ultimately, this systematic review aims to contribute to improved patient care and inform future therapeutic strategies for this challenging gastrointestinal disorder.

Condition being studied Irritable Bowel Syndrome (IBS) is a prevalent functional gastrointestinal disorder characterized by abdominal pain, bloating, and altered bowel habits. Among its sub-types, constipation-predominant IBS (IBS-C) is a significant clinical concern due to its impact on patients' quality of life and the limitations of conventional treatments.

METHODS

Participant or population Patients with IBS-C in various clinical settings.

Intervention Various herbal remedies.

Comparator Controls, with the exception of two studies, where the interventions were compared with Cisapride and psyllium respectively.

Study designs to be included Observational and interventional studies.

Eligibility criteria Full-text articles of the selected studies were retrieved for further evaluation.

Studies were included if they met the following criteria: a) Study Design: Randomized controlled trials (RCTs), observational studies (cohort, case-control, cross-sectional), and clinical trials investigating the use of herbal remedies in the management of IBS-C were considered. b) Participants: Studies involving adult patients diagnosed with IBS-C according to established diagnostic criteria, such as Rome criteria, were included. c) Intervention: Studies evaluating the use of herbal remedies as the primary intervention for IBS-C management were considered eligible. Herbal remedies included botanical preparations derived from plants with potential therapeutic effects on IBS-C symptoms. d) Outcomes: Studies reporting relevant clinical outcomes related to IBS-C symptom improvement, such as changes in bowel habits, abdominal discomfort, bloating, and overall quality of life, were included. Studies were excluded if they were conducted in pediatric populations, used combined interventions (e.g., herbal remedies with other pharmacological agents), or focused on other subtypes of IBS (diarrhea-predominant or mixed). Case reports, reviews, and studies lacking clear outcome measures were also excluded.

Information sources Electronic databases including PubMed, MEDLINE, Embase, Scopus, and the Cochrane Library were searched from their inception until July 2023. The search terms were constructed using Medical Subject Headings (MeSH) and keywords related to "herbal remedies," "constipation-predominant irritable bowel syndrome," and "IBS-C".

Main outcome(s) The main outcomes were relevant clinical outcomes related to IBS-C symptom improvement, such as changes in bowel habits, abdominal discomfort, bloating, and overall quality of life.

Quality assessment / Risk of bias analysis The methodological quality of included RCTs was assessed using the Cochrane Collaboration's Risk of Bias Tool, evaluating random sequence generation, allocation concealment, blinding of participants and personnel, blinding of outcome assessment, incomplete outcome data, selective reporting, and other sources of bias. For observational studies, the Newcastle-Ottawa Scale (NOS) was employed to assess the risk of bias. The quality assessment was independently conducted by two reviewers, and any discrepancies were resolved through consensus.

Strategy of data synthesis Due to the anticipated heterogeneity among the included studies, a meta-

analysis was not deemed appropriate. Therefore, a narrative synthesis approach was used to summarize the findings, and relevant data were presented in tabular format.

Subgroup analysis Subgroup analysis was conducted in accordance with the available data from the extracted data from the included studies, such as additional diagnoses, symptomatology, and sex.

Sensitivity analysis No sensitivity analysis was conducted in our systematic review.

Language restriction Studies included had to be published in English.

Country(ies) involved Romania and Italy.

Keywords herbal remedy, constipation-predominant irritable bowel syndrome, non-pharmacological therapy.

Dissemination plans Publication in a peer-reviewed journal.

Contributions of each author

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