INPLASY PROTOCOL

Corresponding author:
Xu Qianwen

1297373614@qq.com

Author Affiliation:
Qilu Hospital of Shandong University.

Meta-analysis of the clinical efficacy of Bifidobacterium trivium in the treatment of asthma in children

Xu, Q[1]; Huang, Q[2].

Review question / Objective: The incidence of asthma in children is increasing year by year and therefore the efficacy of Bifidobacterium trivium in the treatment of asthma in children is of increasing interest. The present meta-analysis aims to accurately evaluate the efficacy of Bifidobacterium triptans in children with asthma. p: Children with asthma I: Bifidobacterium trisporium C: Conventional treatment O: Overall efficiency, lung function indicators, blood interleukin levels, interferon IFN-γ levels, lymphocyte subpopulation CD4+/CD8+ ratio, adverse rates and incidence S:rct trial.

Condition being studied: Treatment of asthma in children.

INTRODUCTION

Review question / Objective: The incidence of asthma in children is increasing year by year and therefore the efficacy of Bifidobacterium trivium in the treatment of asthma in children is of increasing interest. The present meta-analysis aims to accurately evaluate the efficacy of Bifidobacterium triptans in children with asthma. p: Children with asthma I: Bifidobacterium trisporium C: Conventional

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METHODS

Search strategy: Search: (((("Asthma"[Mesh]) OR (((Asthmas[Title/Abstract]) OR (Bronchial Asthma[Title/Abstract])) OR (Asthma, Bronchial[Title/Abstract]))) AND ((Bifidobacterium bifidum[Title/Abstract]) OR (Bifidobacterium[Title/Abstract]))) AND (randomized controlled trial[Publication Type] OR randomized[Title/Abstract] OR placebo[Title/Abstract]) Search: randomized controlled trial[Publication Type] OR randomized[Title/Abstract] OR placebo[Title/Abstract] Search: (Bifidobacterium bifidum[Title/Abstract]) OR (Bifidobacterium[Title/Abstract]) Search: ("Asthma"[Mesh]) OR (((Asthmas[Title/Abstract]) OR (Bronchial Asthma[Title/Abstract])) OR (Asthma, Bronchial[Title/Abstract])) Search: ((Asthmas[Title/Abstract]) OR (Bronchial Asthma[Title/Abstract])) OR (Asthma, Bronchial[Title/Abstract]).

Participant or population: Children with asthma.

Intervention: Bifidobacterium trisporium.

Comparator: Conventional treatment.

Study designs to be included: RCT trial.

Eligibility criteria: Study population:Patients with confirmed childhood asthmaStudy type:randomised controlled trial (comparable in terms of condition and age)Intervention: Bifidobacterium triptans in the experimental group (unlimited dose and duration of treatment) + measures in the control group, no probiotic intervention in the control group.

Information sources: PubMed, Cochrane, Embase, Web of Sience, Scopus, ProQuest, Ovid.

Main outcome(s): Overall efficiency, lung function indicators, blood interleukin levels, interferon IFN-γ levels, lymphocyte subpopulation CD4+/CD8+ ratio, adverse rates and incidence.

Data management: Endnote.

Quality assessment / Risk of bias analysis: Cochrane TOOL.

Strategy of data synthesis: This Meta-analysis was performed using the RevMan 5.3 software provided by the Cochrane Collaboration Network for meta-analysis of the included randomised controlled literature. Statistical variables included dichotomous and continuous variables. Heterogeneity analysis of effect sizes was required and heterogeneity was jointly judged using chi-square test and I2. When I2<50% and P≥0.1, it indicated that there was no heterogeneity in the statistics and a fixed-effects model should be used for statistics, otherwise a random-effects model was used.

Subgroup analysis: Subgroup studies depending on patients' age, marital status and economic circumstances.

Country(ies) involved: China.

Keywords: Asthma in children; Bifidobacterium trisporus; Meta-analysis.

Contributions of each author:
Author 1 - XU QIANWEN.
Author 2 - HUANG QIKUN.