

INPLASY PROTOCOL

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Conflicts of interest:
None declared.

Anemia and related nutrient deficiencies after sleeve gastrectomy: a systematic review and meta-analysis

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Review question / Objective: What's the risk in different periods of anemia and related nutrient deficiencies after sleeve gastrectomy?

Condition being studied: Obesity.

Information sources: Using the Pubmed, Embase, and Web of Science databases, we conducted a systematic literature search for relevant articles published before March 22, 2022.

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 24 March 2022 and was last updated on 24 March 2022 (registration number INPLASY202230240).

INTRODUCTION

Review question / Objective: What's the risk in different periods of anemia and related nutrient deficiencies after sleeve gastrectomy?

Condition being studied: Obesity

METHODS

Participant or population: Patients undergoing standard sleeve gastrectomy. Exclusion: adolescents, pregnant women, participants less than 30, patients without pre-operative data.

Intervention: Sleeve gastrectomy.

Comparator: None.

Study designs to be included: Randomized controlled studies, prospective studies, retrospective studies.

Eligibility criteria: Article, adults, case number>30, standard sleeve gastrectomy, English.

Information sources: Using the Pubmed, Embase, and Web of Science databases, we conducted a systematic literature search for relevant articles published before March 22, 2022.

Main outcome(s): Anemia, iron deficiency, ferritin deficiency, transferrin deficiency, folate deficiency, vitamin B12 deficiency, vitamin D deficiency.

Quality assessment / Risk of bias analysis: Newcastle-Ottawa Scale(NOS) for the quality of non-randomized studies
Cochrane's Collaboration Tool for the quality of randomized controlled studies.

Strategy of data synthesis: Random effect model for estimating relative risks.

Subgroup analysis: Subgroups according to follow-up duration, mean BMI, study design, and postoperative micronutrient supplementation strategy.

Sensitivity analysis: We will carry out a sensitivity analysis to identify the stability and robustness of the findings by excluding trials with a high risk of bias.

Country(ies) involved: China.

Keywords: anemia, micronutrients, sleeve gastrectomy

Contributions of each author:

Author 1 - Ziru Tian.

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