OBESITY, BARIATRIC SURGERY, AND INFLAMMATORY BOWEL DISEASE (IBD): A SCOPING REVIEW OF THE MYSTIFYING RELATIONSHIP

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IFSO NAPOLI 2023

I have no potential conflict of interest to report

Introduction

Large proportion of IBD patients are overweight/obese

- 15-40% obese, 20-40% overweight (Singh S, 2017)

Obesity: state of chronic low-grade inflammation

- Adipose tissue secretes adipokines/cytokines- potentiates inflammatory cascade in IBD (Fink C, 2012)

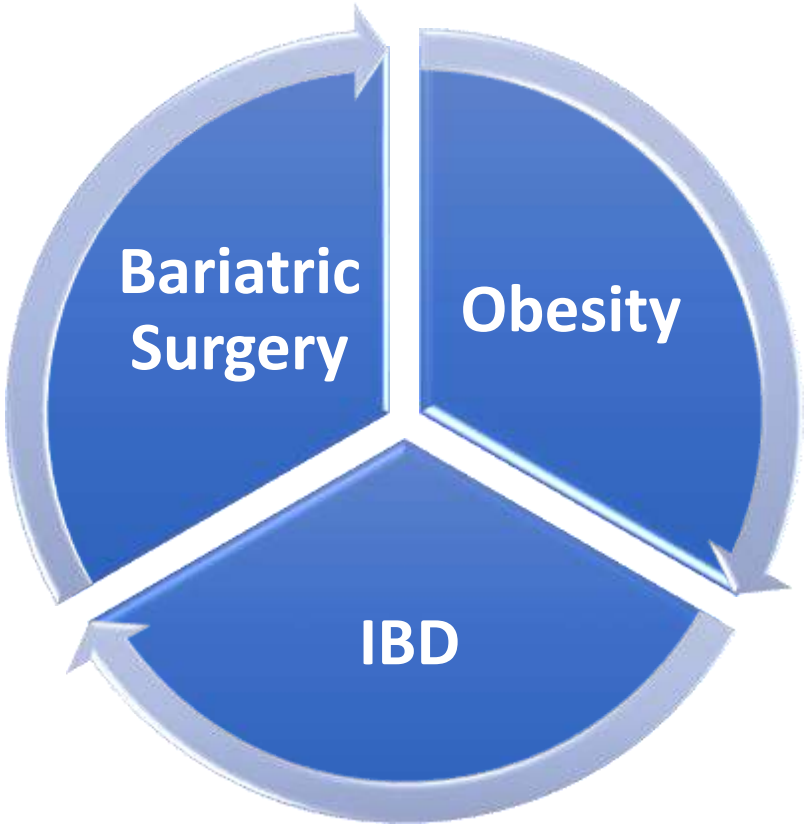
Bariatric surgery (BS) is increasingly used for severe obesity in IBD patients

- Long-term weight loss, improvement in obesity-linked comorbidities and quality of life (Arteburn DE, 2020)

Development of de-novo IBD after bariatric surgery (Canete F, 2018; Kermansaravi, 2022)

Introduction

Data is scarce

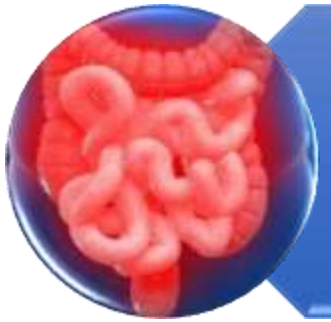


Highlight to

Bariatric surgeons, Gastroenterologists, General practitioners, and Researchers

Objectives

Scoping Review



1. Examine the impact of bariatric surgery on patients with pre-existing IBD

2. Describe the risk of de-novo IBD development after bariatric surgery

Methodology

Preferred Reporting Items for Systematic Reviews & Meta-analyses (PRISMA) Extension for Scoping Reviews

Search strategy

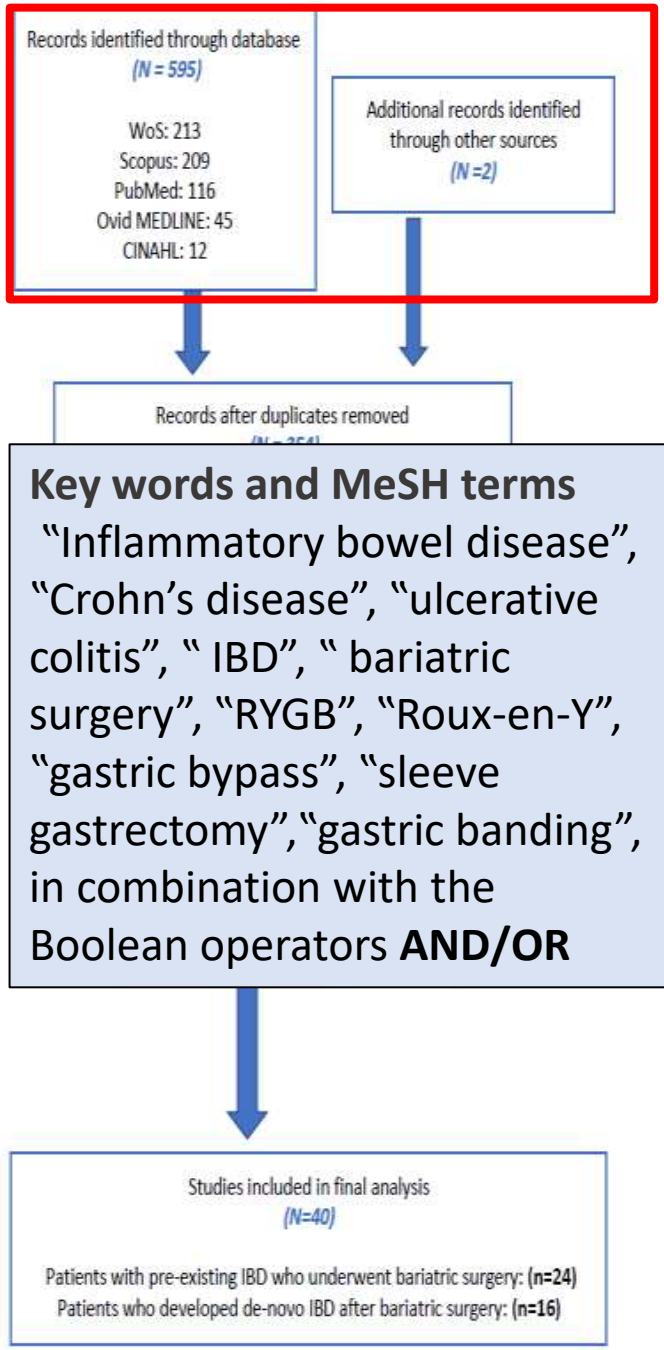
- 5 databases
- Inception to Nov 2022
- 595 studies

IDENTIFICATION

SCREENING

ELIGIBILITY

INCLUDED



Inclusion Criteria

- Patients with IBD who underwent bariatric surgery
- Patients who developed IBD post-bariatric surgery

Exclusion Criteria

- Review articles, commentaries, and non-English publications
- Animal and in-vitro models

Methodology

Screening the titles/abstracts & data extraction of full-text

- 2 independent reviewers
- Discrepancies-3rd investigator

Final analysis (n=40)

Patients with pre-existing IBD who underwent bariatric surgery

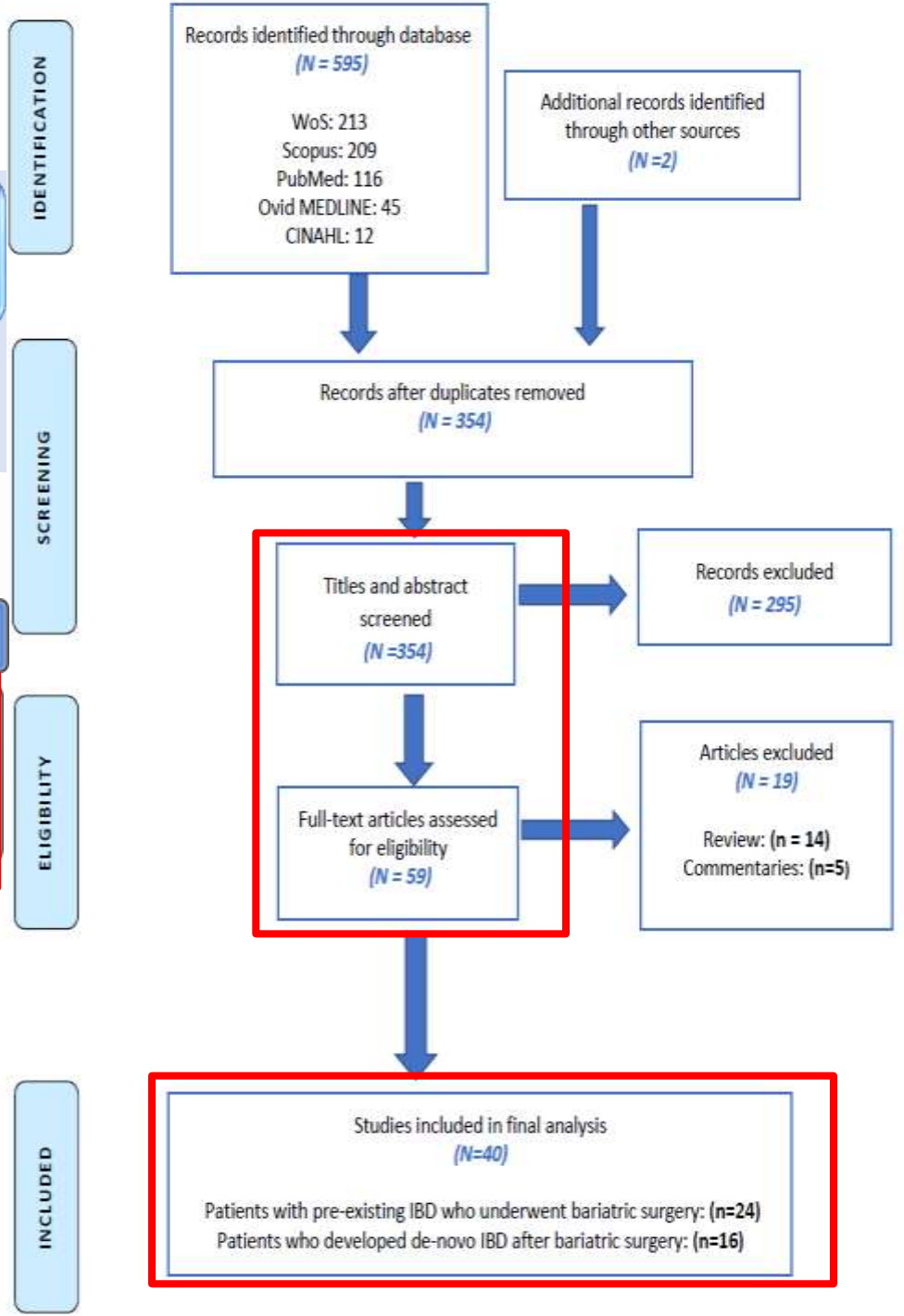
N =24 studies

Patients without prior IBD diagnosis who developed de-novo IBD post-surgery

N=16 studies

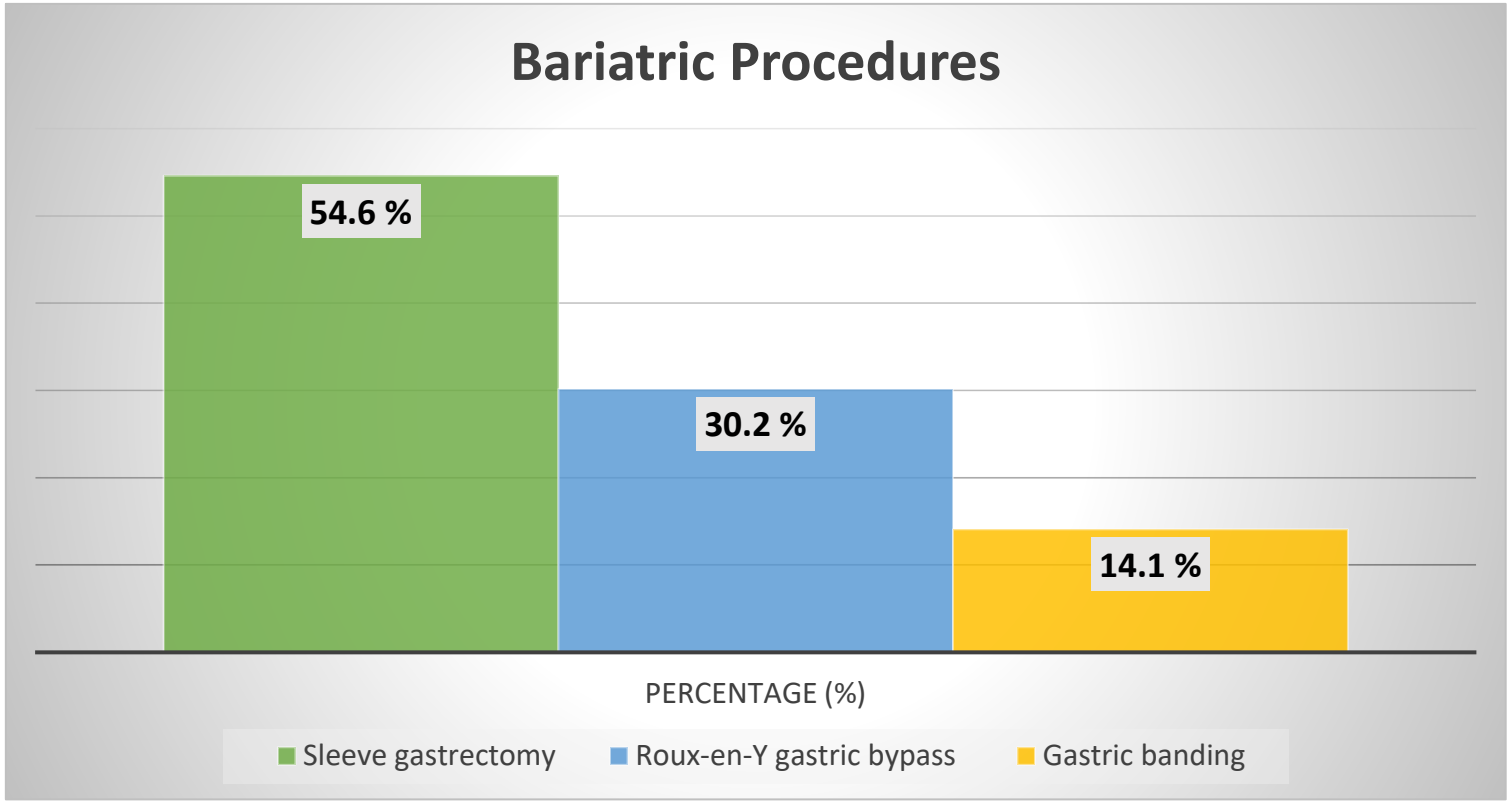
Synthesis, analysis, and reporting of results

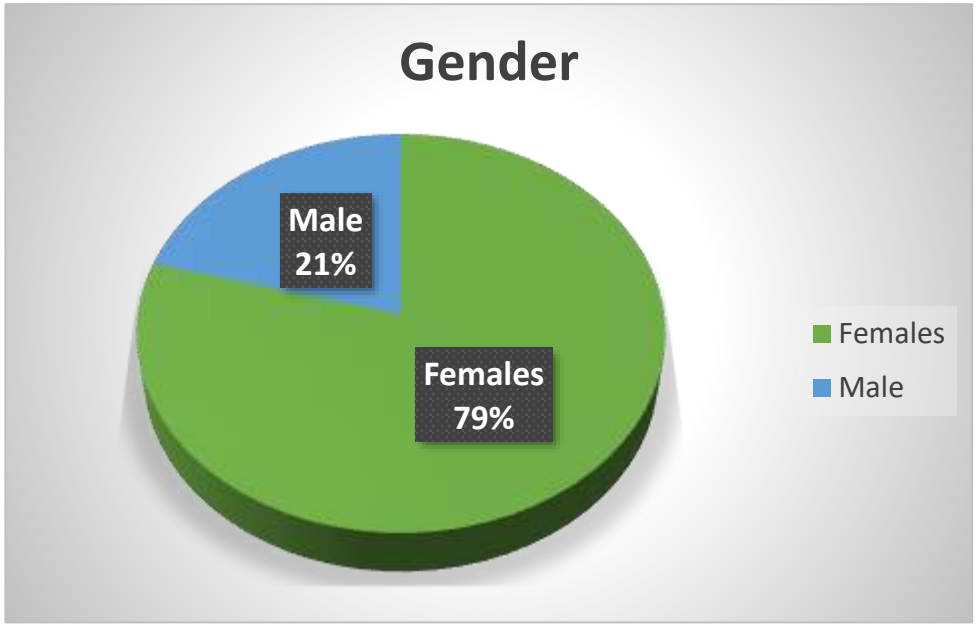
- Quantitative and qualitative reporting
  - Charts and tables to display data

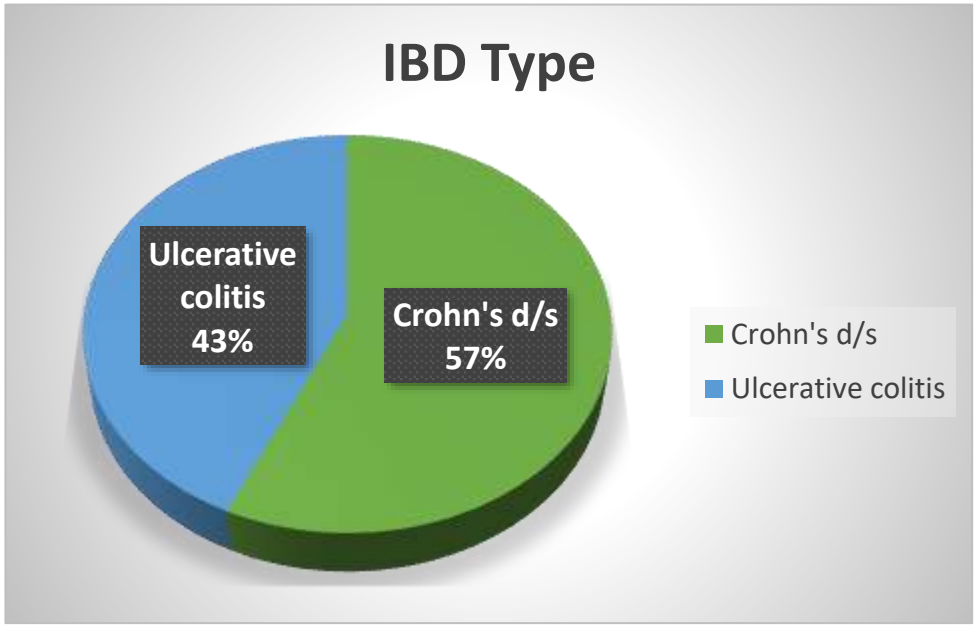


Results (Objective 1): IBD patients who underwent bariatric surgery

- ❑24 studies (1856 patients)
- ❑Retrospective studies
- ❑Mean age: 47 years (Range: 33 to 64 years)
- ❑Mean pre-operative BMI: 45 kg/m^2 (Range: 40.6 to 57 kg/m^2)







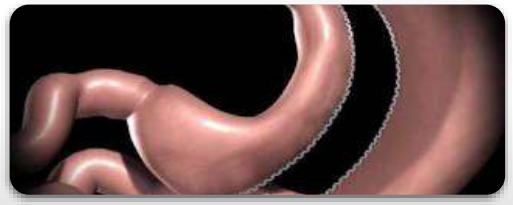
Results (Objective 1): IBD patients who underwent BS (Outcome)

Mean follow-up post-surgery: 3.4 years (range 1 to 10 years)

Excess weight loss as percentage (EWL%), ranged from 35.4% to 86 %

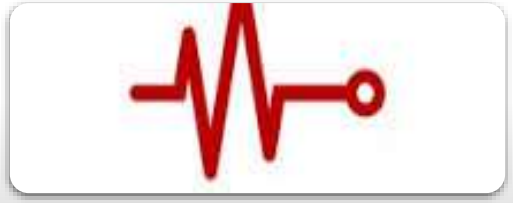
Total of 334 complications from 22 studies (total 1721 patients))

- Majority happened during the early (<3 months) post-operative period



Most common complications

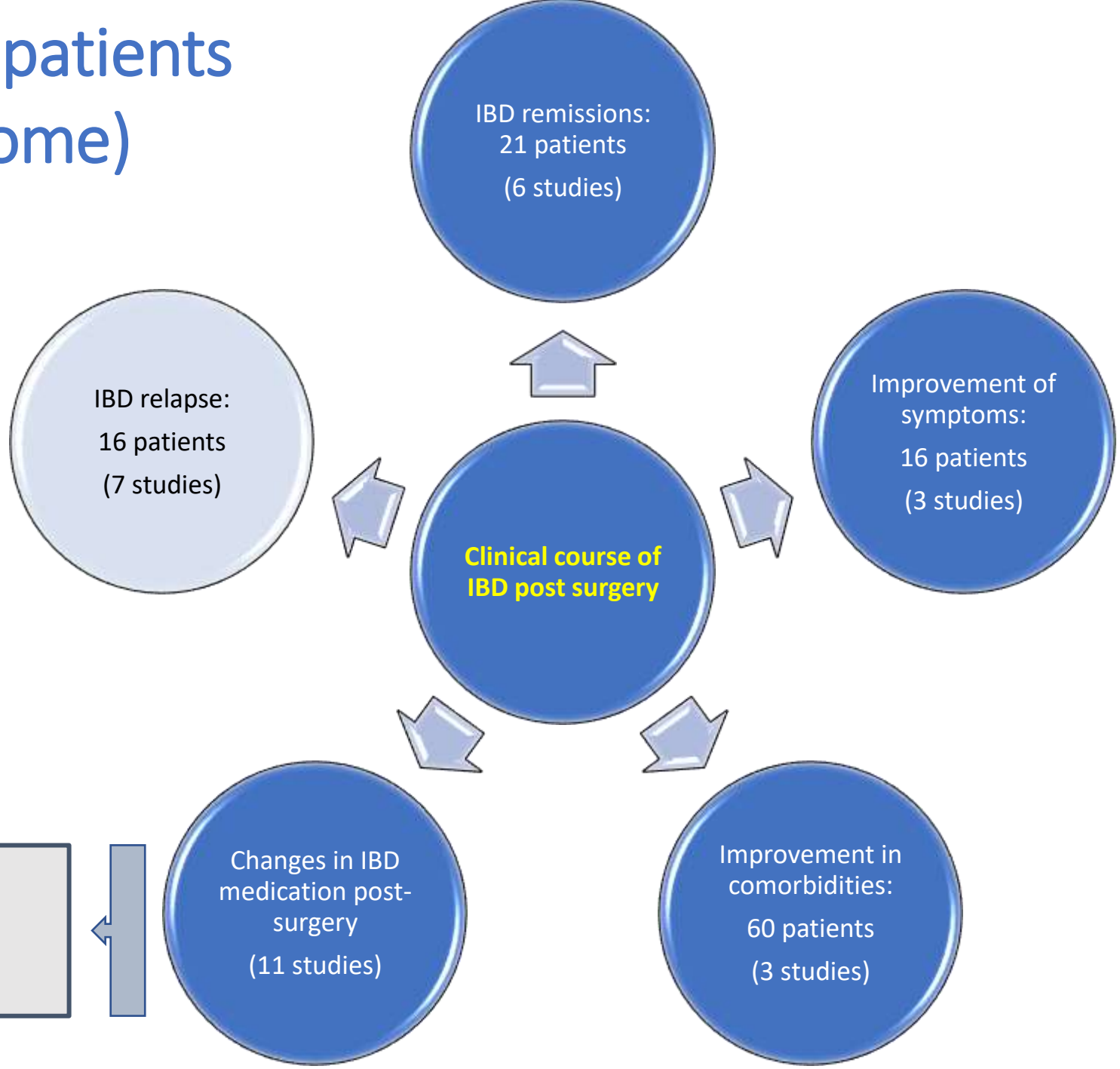
- Strictures (61 patients, 3 studies)
- Small bowel obstruction (60 patients, 3 studies)
- Bleeding (48 patients, 6 studies)



No mortality directly related to bariatric surgery

Results (Objective 1): IBD patients who underwent BS (Outcome)

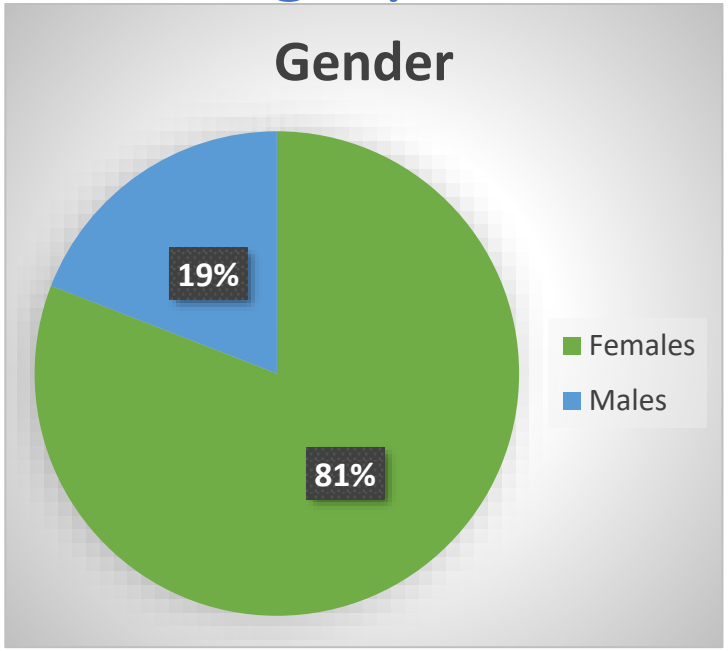
Only few studies had reported on various aspects of clinical course of IBD post-bariatric surgery

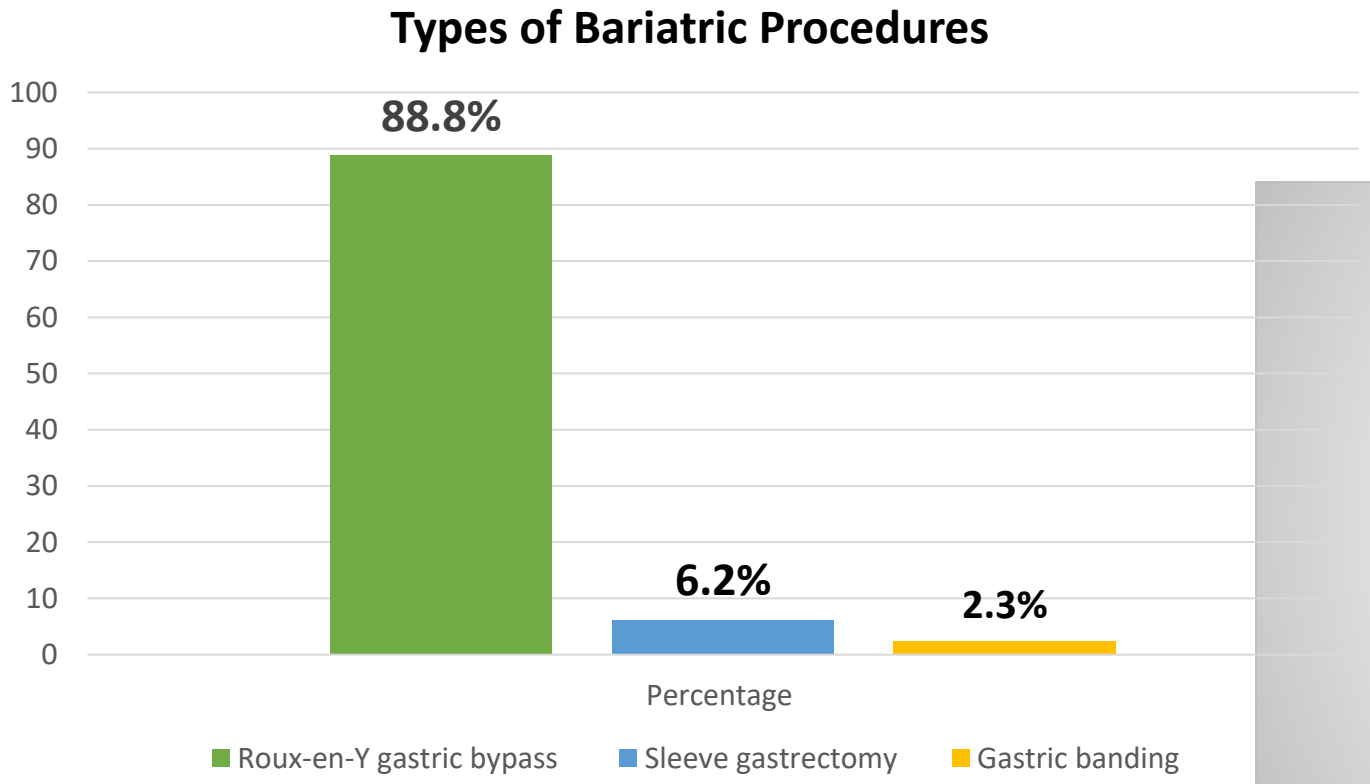


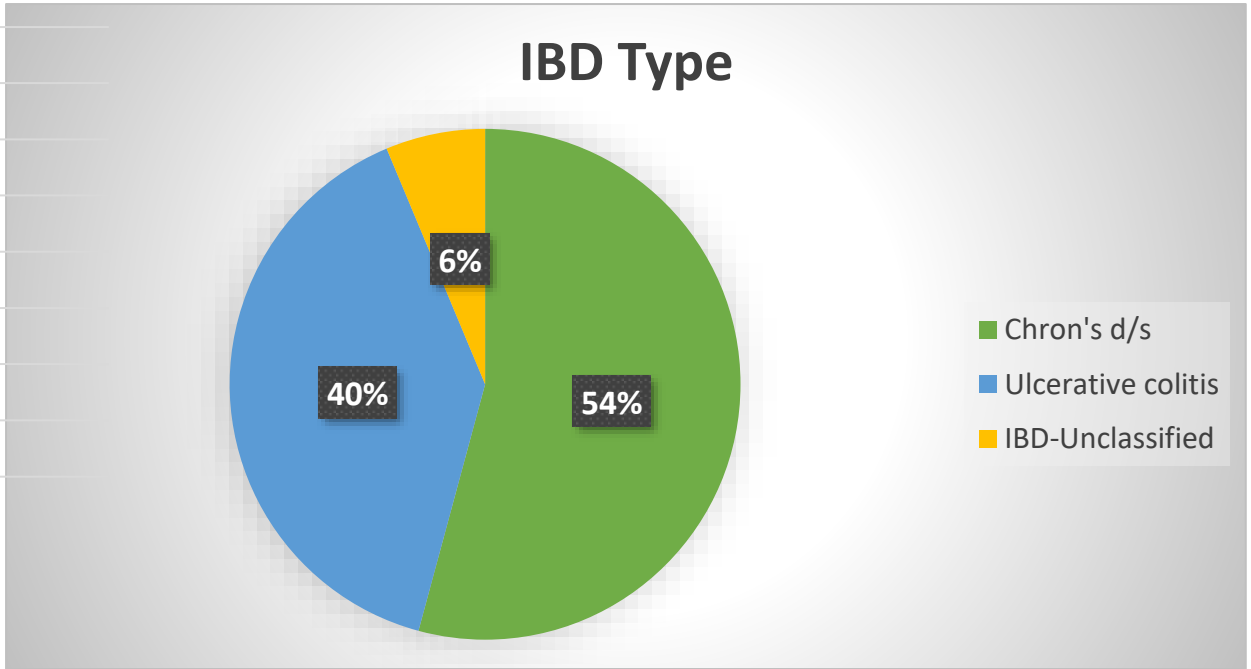
Decrease IBD medications - 31 patients (7 studies)
Discontinue medication: 31 patients (7 studies)
No change: 90 patients (4 studies)
Increase dosage/new IBD drugs: 18 patients (4 studies)

Results (Objective 2): De-novo IBD post-bariatric surgery

- 16 studies (involving 955 patients)
- De-novo IBD was diagnosed mean 46 months post-bariatric surgery (range 2-108 months)
- Mean age: 43 years (range 19-59 years)
- Pre-op BMI ranged from 32-55 kg/m^2







Conclusion

Objective 1: Impact of bariatric surgery on patients with pre-existing IBD

- Majority authors concluded bariatric surgery is safe & effective for IBD patients
- Substantial weight loss in IBD patients
- Acceptable post-operative complications
- Improvement in various comorbidities, IBD symptoms
- Positive impact on disease remissions & changes in IBD medications
- No mortality directly linked to bariatric surgery

Conclusion

Objective 2: de-novo IBD development after bariatric surgery

- Crohn's disease-most common IBD postoperatively
- Vast majority IBD cases were associated with Roux-en-Y gastric bypass
- Should be considered in patients with persistent GIT symptoms post-surgery
- Risk of de-novo IBD is considered small, and positive effects of surgery outweighs these findings (Kiasat A et al, 2022)

Limitations & Strengths

Limitations

- Studies were retrospective in nature
- Clinical course of IBD post-surgery was not assessed in many studies

Strengths

- Most updated scoping review comprising the largest number of studies
- Extensive database search

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THANK YOU

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