POST-DISCHARGE FOLLOW-UP OF CONGENITAL DUODENAL OBSTRUCTION PATIENTS: A SYSTEMATIC REVIEW

Review of the long-term outcomes of duodenal obstruction and a summary of current care

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INTRODUCTION

Congenital duodenal obstruction is a rare anomaly characterized by complete or partial obstruction of the duodenum

Duodenal atresia is the most common of the intestinal atresias, occurring once in 6000 to 10,000 live births

After repair of duodenal obstruction, patients may be followed by their surgeons, but commonly, long-term care is managed by primary care providers

AIM

The purpose of this review was to:

- summarize the literature about the outcomes of duodenal obstruction patients after discharge
- to suggest specific complications and associations for which screening should be considered as supported by the literature

METHOD

- In 2022, after registering with PROSPERA, Medline (Ovid), EMBASE, PSYCHINFO, CNAHL and SCOPUS databases were searched using the title keyword 'intestinal atresia'.
- *Identification of studies:* Abstracts were filtered to only include the duodenum
- *Inclusion and exclusion:* Papers were included if they reported post-discharge outcomes
- *Extraction of outcomes*: Description of patients, type of surgery, age of follow-up, outcomes measured and results
- Data was independently abstracted from each manuscript by two authors (SLM, MI) who conferred to reach a consensus
- Outcomes classified by: Late mortality, gastrointestinal function, anthropometric and musculoskeletal outcomes, neurologic or neurodevelopmental outcomes and quality-of-life or general well-being
- Methodological Index for Non-Randomized Studies was used to grade the papers

RESULTS

- 2702 patients included; 2297 survived to discharge or for more than 30 days of life
- Duodenoduodenostomy was the most commonly performed surgery (approximately 50%) followed by duodenojejunostomy, web excision and gastrojejunostomy
- 23 manuscripts reported anastomotic anomalies or dysfunction
- 5/45 patients in four papers reported poor growth- due to associated anomalies
- 2 articles assessed neurologic deficits
- 2 articles assessed neurodevelopment

RESULTS

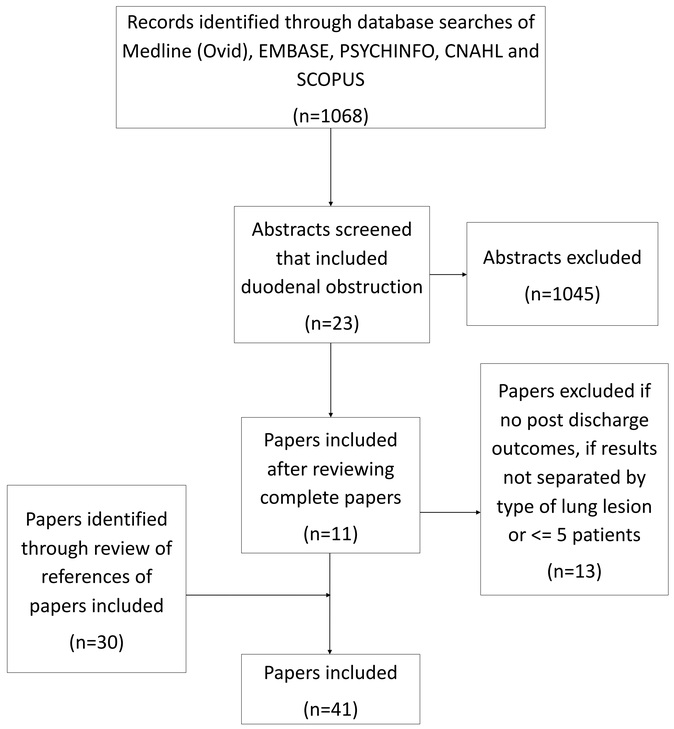

Figure 1. Flow diagram of inclusion and exclusion of papers retrieved through database search of 'intestinal atresia' and subsequent review of references.

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CONCLUSION

- Children with congenital duodenal obstruction do well in terms of survival, growth and general well-being.
- Associated cardiac, musculoskeletal and renal anomalies should be ruled-out.
- Care providers should be aware of anastomotic dysfunction, blind loop syndrome, bowel obstruction and reflux.
- Reflux may be asymptomatic.
- Laparoscopic repair does not change long-term outcomes.
- Associated Trisomy 21 worsens neurodevelopmental outcomes.

Further investigations on the frequency and sequelae of duodenogastric and gastroesophageal reflux is warranted.

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