

Gastroschisis management in a low resource setting

AIM

- To create an evidenced based protocol on the management of gastroschisis undergoing secondary silo staged repair using hand sewn custom-made silo in low resource settings

DEFINITION

- Gastroschisis (GS) is the most common congenital anterior abdominal wall defect. It is the extrusion of abdominal viscera (usually the intestines) into the amniotic space without amniotic membrane coverage¹.

BACKGROUND

- Global discrepancy in the outcome of infants born with gastroschisis exist².
- Low-Income countries report 60-100% mortality rate while high income countries report < 5%².
- Low income countries associate the following factors with high mortality rates:
 - Lack of antenatal diagnosis
 - Scarce neonatal intensive care (NICU) facilities
 - Difficulty with intravenous accesses
 - Ineffective neonatal resuscitation and
 - Unavailability of parenteral nutrition (PN)³.

SEARCH STRATEGY

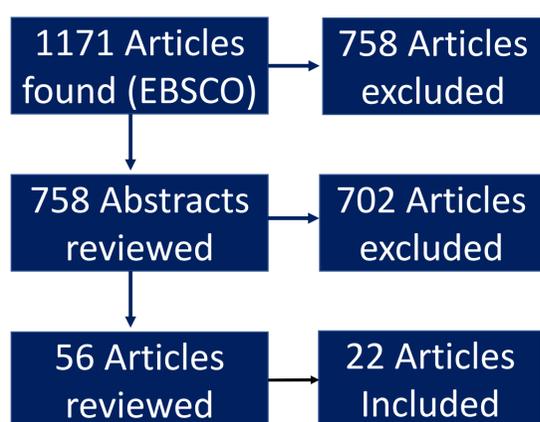


Fig 1: PRISMA Search Strategy

RESULTS

- Management was classified into 4 stages for easier description of the care pathway of GS from admission to discharge. Each stage considers its care components:

KEY RECOMMENDATIONS

- Multidisciplinary collaboration is crucial in management of gastroschisis
- In production of high-quality guideline there need to use a credible grading process i.e. AGREE II format as well as involvement of the necessary stake holders

PROTOCOL

Stage 1 – Immediate Intervention

Thermo-, airway and respiratory management
 Fluids and electrolytes
 Gastric decompression
 Exposed bowel care
 Routine preoperative Immediate care

Stage 2 – Post Silo Placement Care

Thermo-, airway and respiratory management
 Fluids, electrolytes, analgesia, antibiotics
 Gastric decompression
 Daily Silo care
 Parenteral nutrition

Staged Management

Stage 3 – Post Closure Care

Thermo-, airway and respiratory management
 Fluids, electrolytes, analgesia, antibiotics
 Gastric function monitoring
 Wound management
 Parenteral nutrition, introduce enteral nutrition

Stage 4 – Discharge Planning

Immediate home care and long-term follow-up
 Multidisciplinary Team involvement
 (Surgical, Gastroenterology, Neonatology, Dietician, Developmental Screening)