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# Side-to-side Lieno-renal Shunt (Mitra Shunt) in management of Extrahepatic Portal Vein Obstruction (EHPVO): A single center experience

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## Introduction

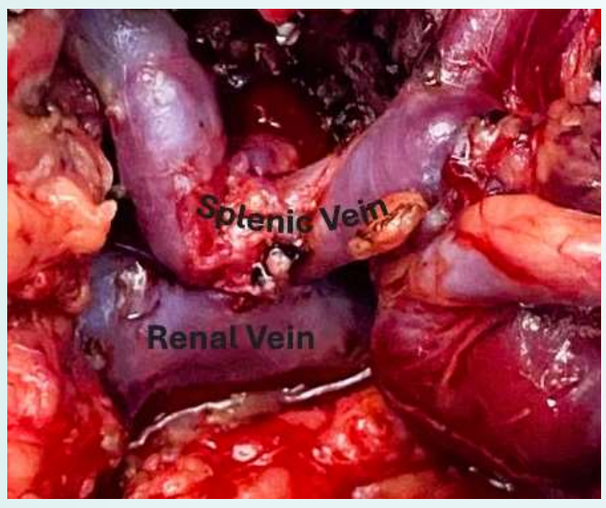
- EHPVO - obstruction of the extrahepatic portal vein, with or without involvement of the intrahepatic portal veins, splenic vein, or superior mesenteric vein
- Management - Endotherapy and surgery, whose roles have progressively evolved over time
- Shunt surgeries - performed mostly as a secondary prophylaxis, or varices not amenable to endotherapy, portal biliopathy or gastropathy or colopathy, growth failure, hypersplenism, massive splenomegaly

## Aim

To present our initial experience with side-to-side spleen preserving spleno-renal shunt in patients with EHPVO with an aim to revive the art of side-to-side shunt procedure

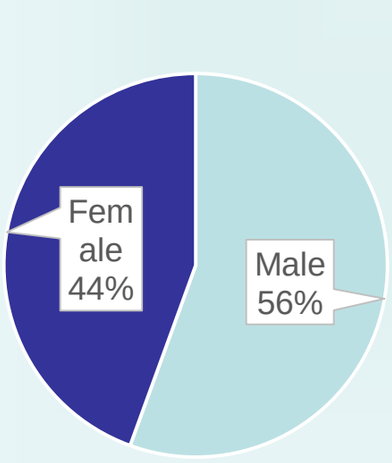
## Methodology

- Retrospective study – from July 2022 to March 2025
- Inclusion Criteria for Side-to-side (Mitra shunt):
  1. Children under 18 years of age diagnosed with EHPVO
  2. Mild to moderate splenomegaly
  3. Small caliber splenic vein
- Exclusion criteria:
  1. Massive splenomegaly
  2. Splenomegaly associated with infarcts
  3. Patent left Portogram, MRI

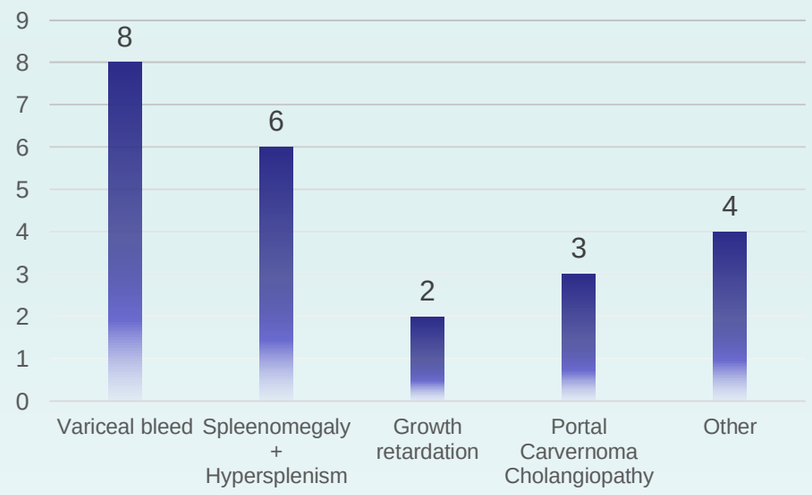



Intra-op image showing completed side-to-side spleno-renal shunt

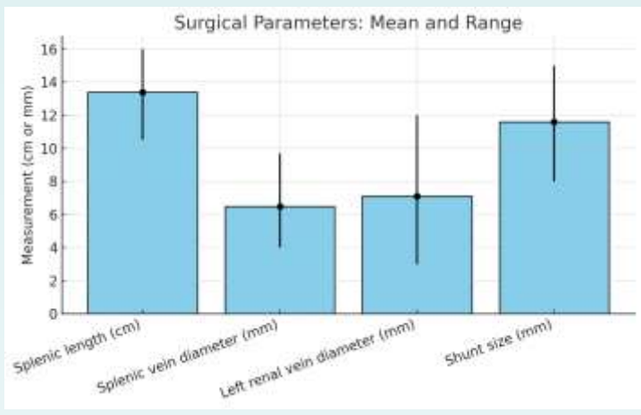
## Results

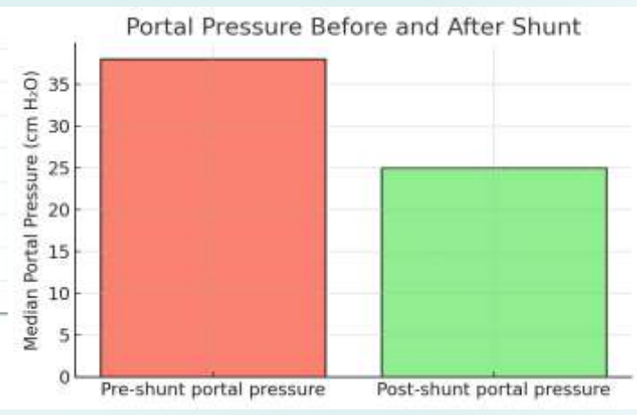



Sex




INDICATION FOR SURGERY




## Discussion

- Management of EHPVO typically follows one of three main strategies:
  - a) Total portosystemic shunt (PSS) performed in all patients after achieving endoscopic control of the initial major variceal bleeding episode
  - b) Mesorex bypass (MRB) used for both primary and secondary prophylaxis when anatomical and clinical conditions are suitable
  - c) Endoscopic therapy continued for secondary prophylaxis until the exhaustion of endoscopic variceal options (EEEV), with routine endoscopic surveillance and selective surgical intervention beyond that point
- The important factors governing the decision for type of shunt procedure - indication for shunt, splenic size and splenic vein diameter.
- Mitra et al showed the ease of construction of a SSRS in patients with splenic vein size ranging from 4mm to 15mm.

## Limitations

- Small sample size
- Short study duration with lack of long-term follow-up

## Conclusion

- Surgery and endotherapy will continue to be complementary in the management of EHPVO.
- Mitra Shunt can be a feasible option for symptomatic pediatric portal hypertension patients with small caliber splenic vein

## References

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