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IVUS-Free Venous Stenting: A Feasible, Cost-Effective Model for Public Hospital.

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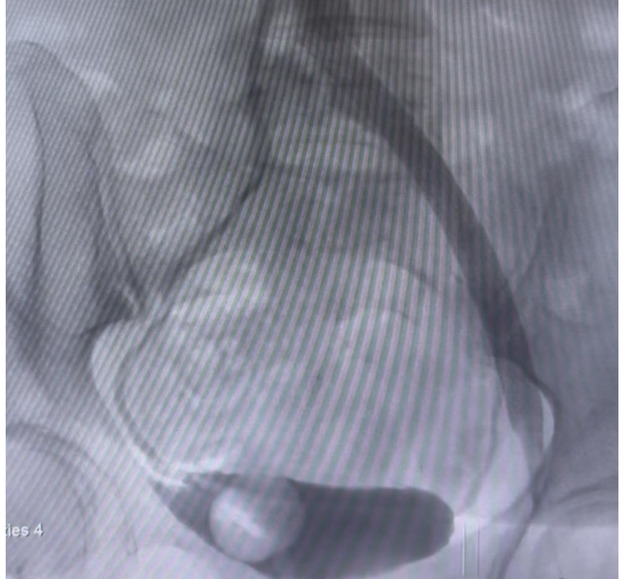
INTRODUCTION

- Iliac femoral obstruction is the major cause for chronic venous insufficiency and non healing ulcer.
- IVUS guided stenting is recommended but often unavailable or unaffordable in public hospitals.
- Evidence of venography guided. IVUS free venous interventions in real world, lower-resources settings are limited.

AIM

To evaluate feasibility, patency and clinical outcomes of Iliac vein Venoplasty ± performed without IVUS in government hospital setting.

Representative of Venography Images

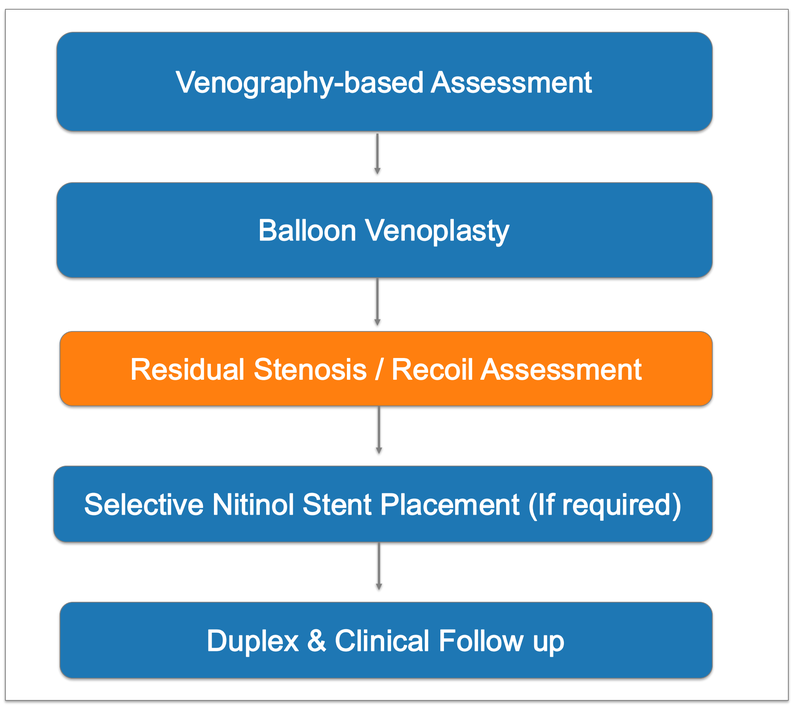


Pre- and Post-intervention venography demonstrating Iliac vein obstruction with Collateralization & Restoration of Inline flow following Venoplasty ± Stenting.

METHODS

- **Designs & Setting:** Retrospective cohort (2019-2025), Tertiary Public Hospital.
- **Patients:** Symptomatic iliac/ iliocaval obstruction
- **Guidance:** Fluoroscopic venography only
- **Intervention:**
  - Balloon Venoplasty for compliant lesion
  - Selective self expanding nitinol stenting for recoil or residual stenosis
  - Adjunctive CFV Venoplasty when inflow disease present
- **Follow up:** Clinical review and duplex at 6 & 12 months; short term anticoagulation, antiplatelet, flavonoids and compression as per institutional protocol.

IVUS free Venography guided work-flow for Iliac intervention

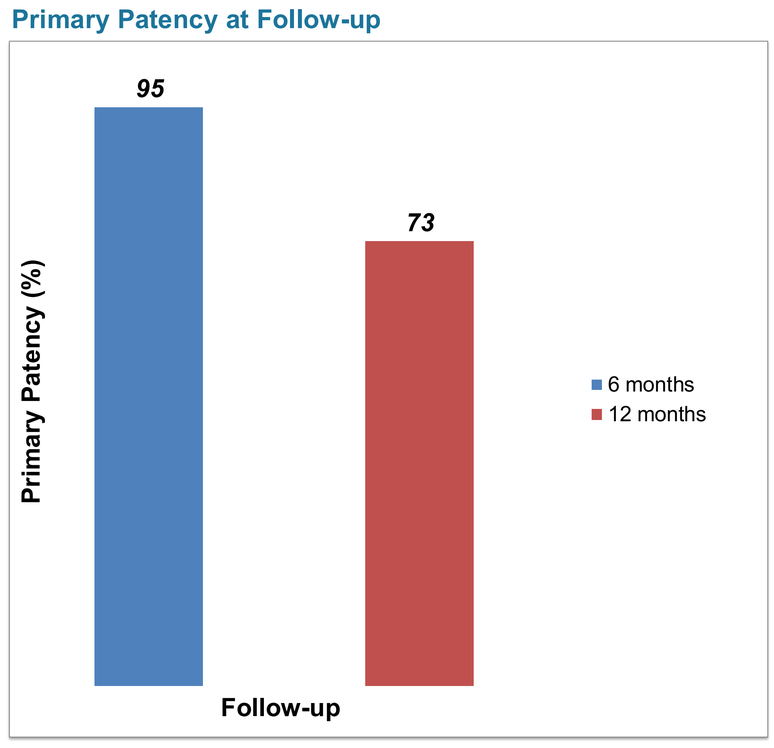


Venography guided, IVUS free stepwise decision workflow for Iliac venous intervention used in this study.

RESULTS

- **Cohort:** 35 limbs treated
  - Venoplasty alone: 22
  - Venoplasty + Stenting: 13
- **Etiology and Anatomy**:
  - PTS: 80%, NIVL: 20%
  - Left Sided: 80%, Right sided: 15%, Bilateral 5%
- **Technical success:** 91% (32/35)
- **Patency**:
  - 95% at 6 months
  - 73% at 12 months
  - Acute stent occlusion: 3 cases(9%), managed conservatively.
- **Clinical benefit:**
  - VCSS improvement 65%
  - Ulcer healing 63%
  - Median return work: 4 weeks
- **Safety**:
  - No major bleeding
  - No procedure related mortality

Primary Patency at Follow-up



Observed primary patency rates at schedule 6- & 12-month follow-up

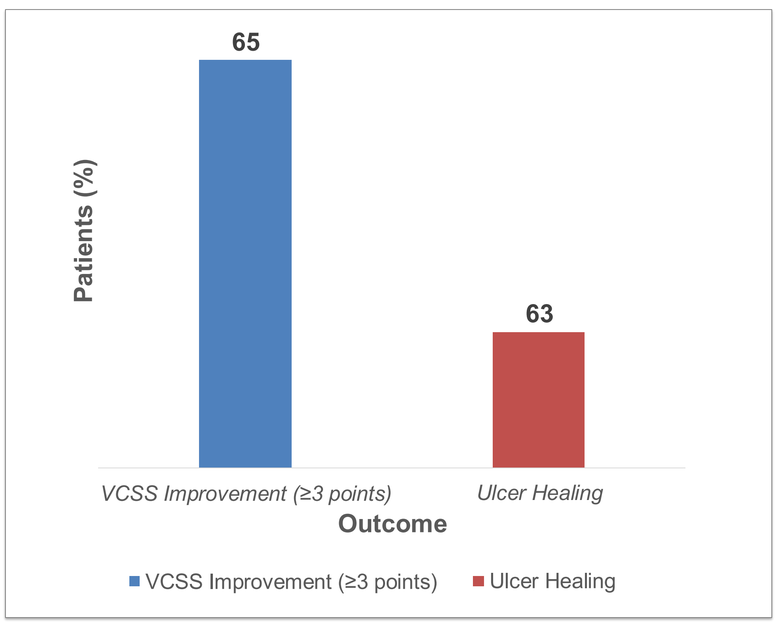
CONCLUSIONS

- IVUS-free iliac venous Venoplasty with selective stenting demonstrated acceptable mid-term patency and clinical improvement in a resource-limited public hospital.
- A venography-guided, stepwise strategy with attention to inflow disease enabled safe real-world outcomes.
- Conventional nitinol stents offer a cost-conscious option for expanding venous care in public-sector settings

TAKE HOME MESSAGE:

Carefully selected iliac venous lesions can be managed safely without IVUS when venography, technique, and follow-up are standardized.

Clinical Outcomes at Follow-up



Proportions of patients demonstrating symptomatic improvement (VCSS ≥ 3) and ulcer healing during follow-up.

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