Chronic Venous Occlusion: treatment

Dr Willie Loan
Belfast HSC Trust

Disclosures

none

- Implications
  - CVI: 10-35% of US population.
  - Active ulceration: 4% ≥ 65yrs
- Healthcare costs > 1 Billion $/year

Incidence of C3 or greater

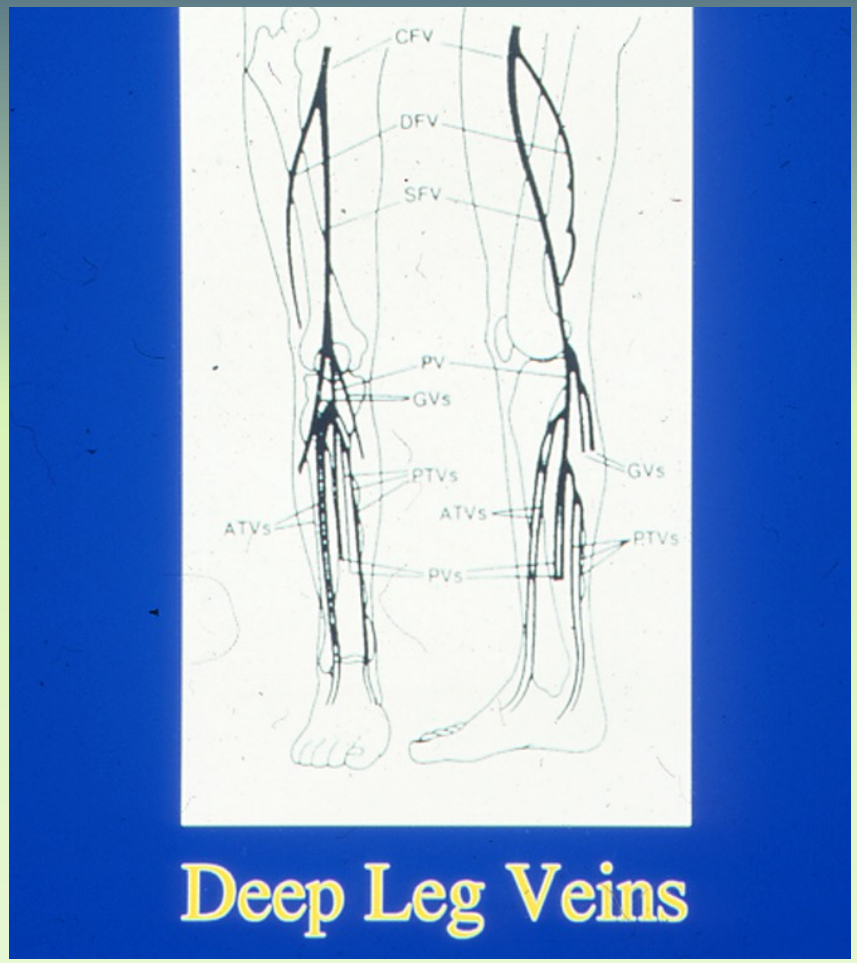
- Leg Swelling 9-13%
- Ulceration 1-3%

Meissner JVS: Suppl S:34S-67S

Invisible occlusion

Investigation

- U/S: high sensitivity rates for infra-inguinal thrombosis
  - Can detect external iliac occlusion in most body shapes
  - Common iliac occlusion not reliably demonstrated
- CT: better demonstration of ilio-caval disease.
- MRV: potentially sensitive for ageing occlusions
- IVUS: the only modality which can detect perivenous fibrotic change which limits expansion and can lead to “functional occlusion”.



Diagnosis

NICE

Thrombolytic therapy

Deep vein thrombosis

Consider catheter-directed thrombolytic therapy for patients with symptomatic iliofemoral DVT who ha

- symptoms of less than 14 days' duration **and**
- good functional status **and**
- a life expectancy of 1 year or more **and**
- a low risk of bleeding.

NICE has published interventional procedures guidance on ultrasound-enhanced, catheter-directed t

Prevention of CVI

- Detection of ilio-caval thrombosis.
  - Treatment modalities
- Surgical thrombectomy, now recommended by American Venous Forum only for failed/contra-indicated endovascular approach.
  - We will consider only if endovascular ineffective or felt to be too high risk/contra-indicated.

– Cochrane review 2016

  - 20 % decrease in PTS with Lysis, 2% increase in bleeding complications.

Evidence for interventions

ACUTE

Registry: >1300 limbs: 95% success rate: no ICU stay: 30% less r-TPA used: no bleeding complications. Veith 2008

JVIR 2008:Hilleman: 147 limbs compared with meta analysis of CDT papers. 93% success rate:86% CDT. No bleeding.

Pharmacomechanical *Thrombectomy* of Acute Deep Vein Thrombosis with the *Trellis*-8 Isolated *Thrombolysis* Catheter. O'Sullivan, GJ, Lohan DG, Gough N, **...**

Publications since late 1990's
Alhalbouni, Dake, Neglen, O'Sullivan, Raju

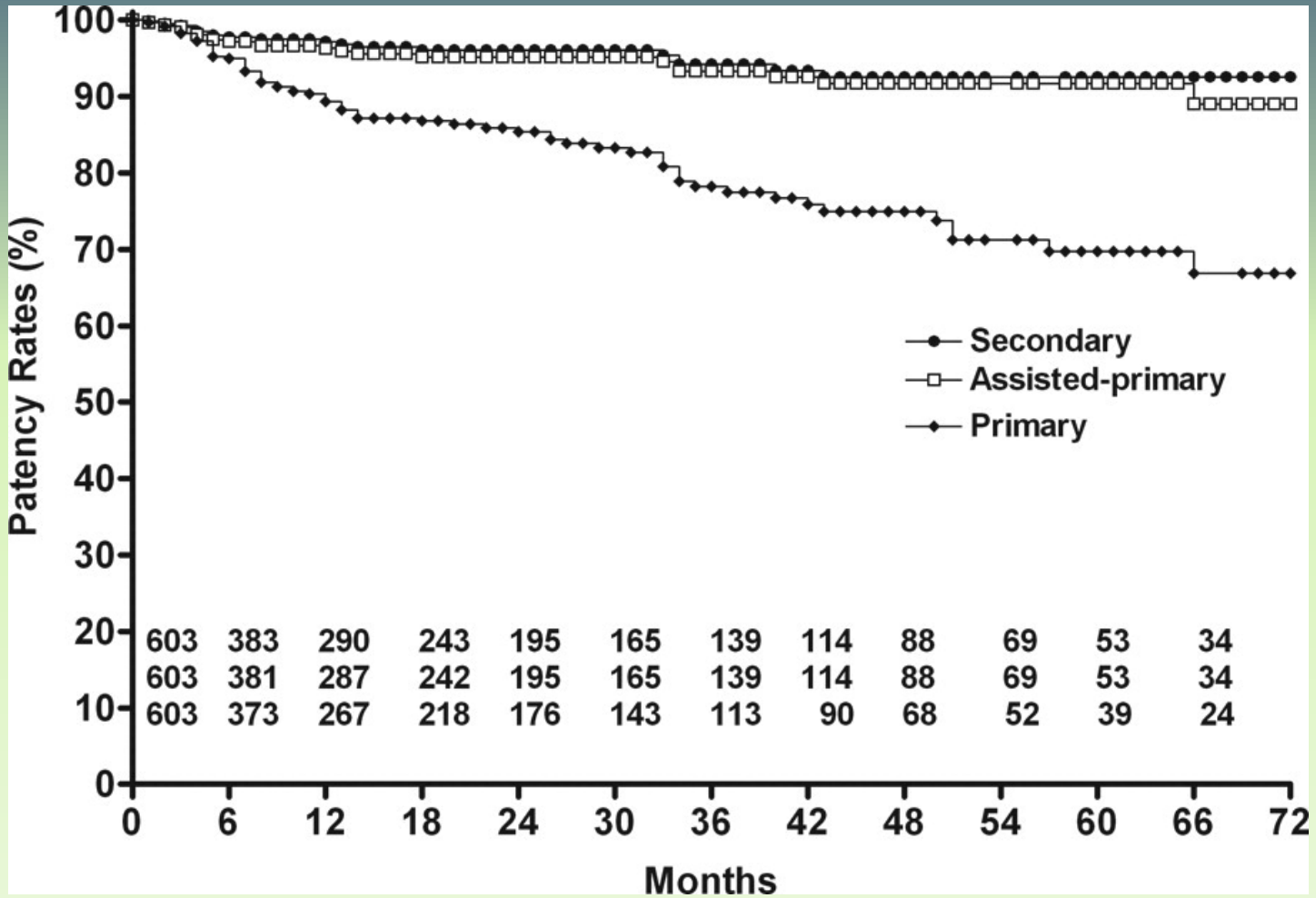
CHRONIC
meta analysis: Raju JVS 2011: 1500 limbs,
Patency: NIVL 90-100%,
Post thrombotic 74-89%
Pain improvement: 86-94%
Swelling:66-89%
Ulcer healing:58-89%

chronic venous insufficiency

- Primary
  - non-thrombotic iliac vein lesion
- Secondary
  - post thrombotic
- post lysis excluded.
- 982 lesions treated.
- 3% thrombosis (1.5% post-op period)
  - early thrombosis in post thrombotic group only

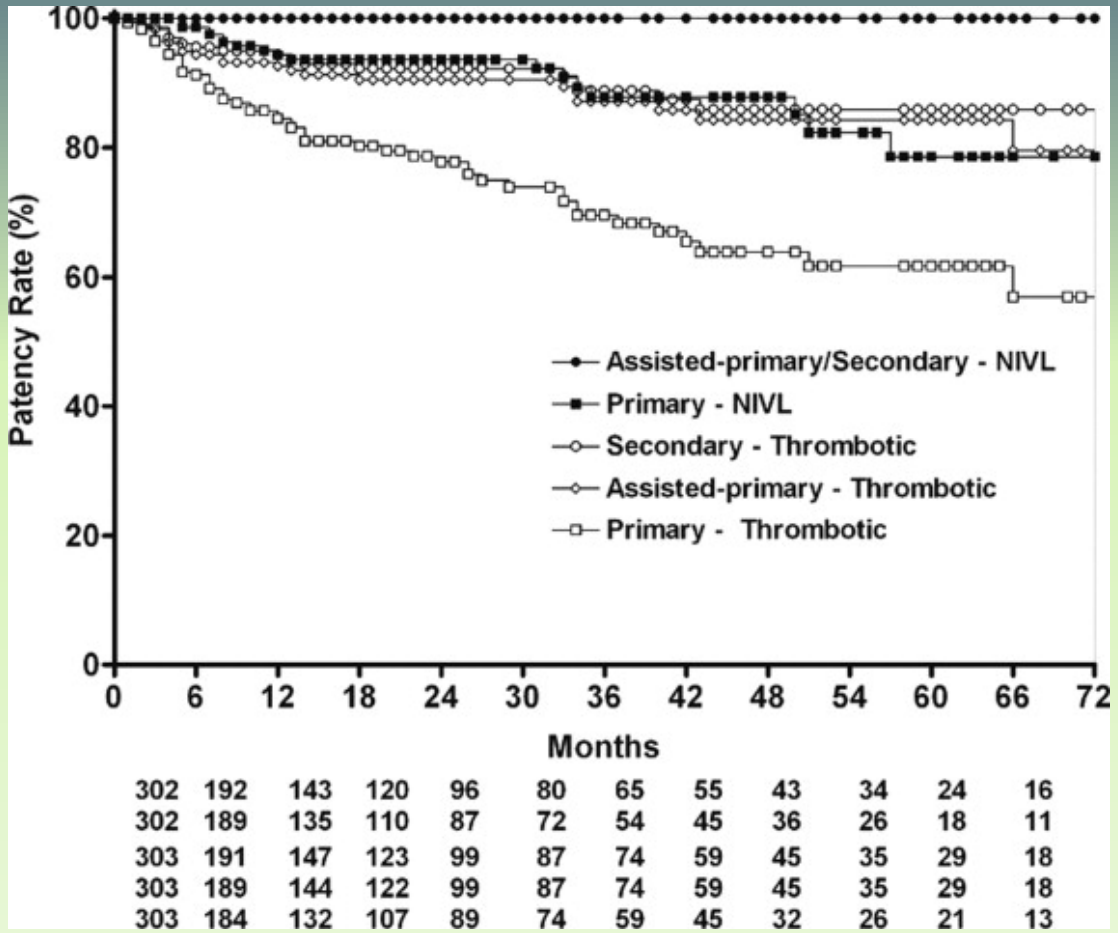
Neglén/Raju JVS 2007

treatment of chronic venous insufficiency

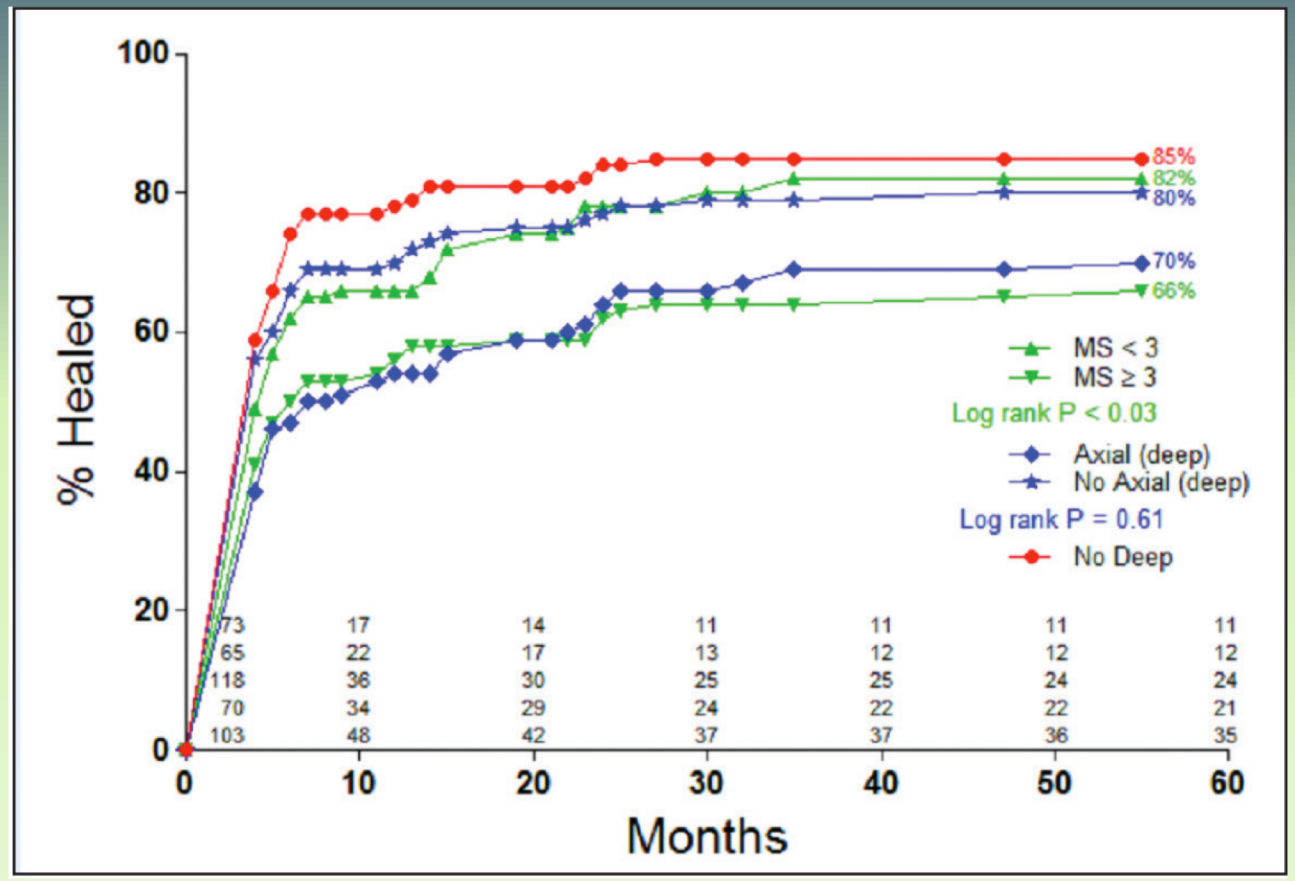


Neglén

Primary (NIVL) Vs Post thrombotic



Role of obstruction: ulceration



persisting improvement

Raju S, Kirk OK, Jones TL.

Case 1

55yr Female
H/O acutely swollen left leg-1week
Pneumonia

No coagulopathy identified
Previous DVT >19yrs ago.

Case 1

Self expanding stent insertion.

Large stents ≥ 16mm (shown to maintain patency)

One sitting: 2.5 hour procedure

Case 2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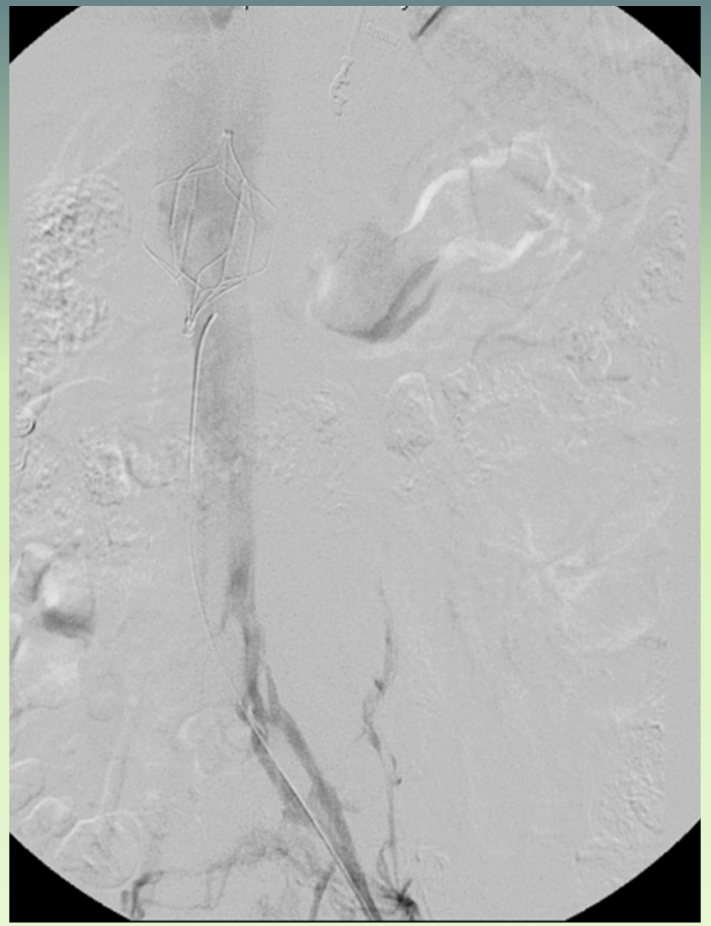
BELFAS


Exported from EasyVision

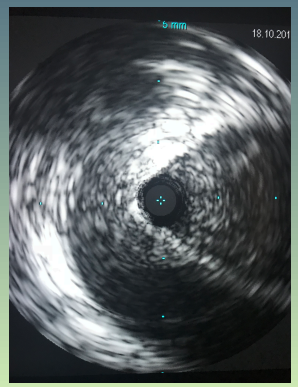
Case 2

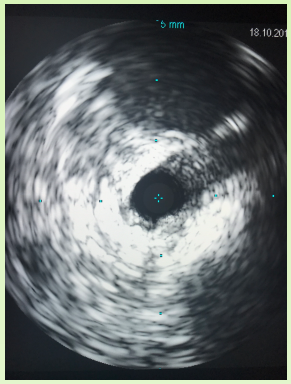


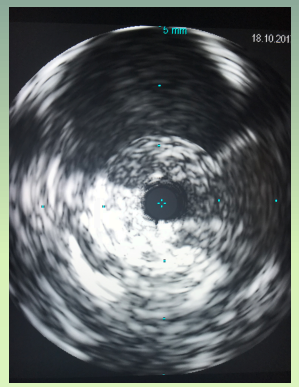
Case 2

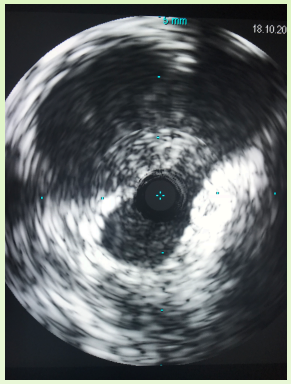
diagnostic difficulty

IVUS, Dynamic?









Case 3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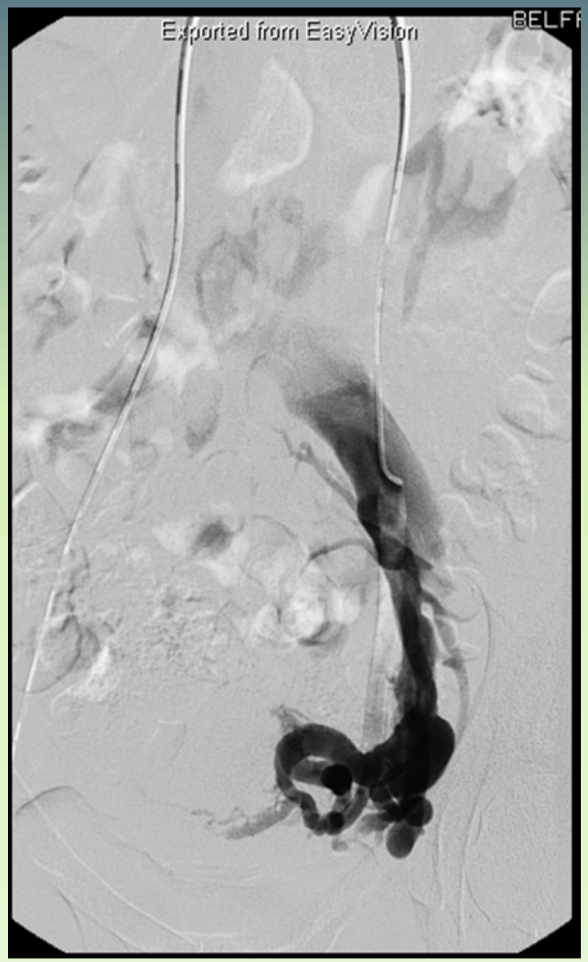
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