PTA & stenting for post thrombotic iliofemoral venous occlusive disease

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Disclosure

Speaker name: Sherif Essam

I have the following potential conflicts of interest to report:

- Consulting
- Employment in industry
- Stockholder of a healthcare company
- Owner of a healthcare company
- Other(s)

I do not have any potential conflict of interest
Background

• After DVT involving the iliac segment only 20% of veins will completely recanalize with anticoagulation treatment.
• The typical post-thrombotic ilio-femoral lesion often involves both the common and external iliac veins.
Background (Cont'd)

- 5 years after ilio-femoral DVT treated conservatively, 90% of patients will suffer chronic venous disease.
- 15-44% ---- Debilitating venous claudication
- 15% ---- develop venous ulcers
Patients

Fifteen patients with post-thrombotic chronic iliac vein obstruction were treated at Ain-Shams University Hospitals between March 2013 to date.
Patients (Cont,d)

- They were 8 males and 7 females.
- Their ages ranged between 28 and 40 years.
- Fourteen were unilateral and one bilateral.
- All had documented ilio-femoral DVT treated by anticoagulation and compression.
- The duration of symptoms ranged between 1 and 10 years.
Patients (Cont,d)

- The CEAP classification of the cases were:

  C4: 6 patients
  C5: 7 patients
  C6: 2 patients
Patients (Cont,d)

• In addition to venous duplex, all patients had CT venography of both lower extremities.
Patients (Cont,d)

CT Venography
Patients (Cont,d)

CT venography of the bilateral case
Technique

• General anesthesia in all cases.
• Access:
Femoral vein access in mid-thigh under duplex guidance
Combined Jugular and femoral access
Popliteal vein access under ultrasound guidance
Combined common femoral vein from upper-thigh, and popliteal vein access under ultrasound guidance, then deep femoral vein access under fluoroscopy.
Technique (Cont,d)

- Traversing the lesion was more-or-less easy in six cases and difficult and time-consuming in another five cases, and failed in four cases.
- The main reason for failure was the occurrence of vein perforation in the iliac segment.
Perforation
Technique (Cont,d)

- Support catheters, hydrophilic terumo guidewires, V18 guide wires and stiff guide wires were required
Technique (Cont,d)

After crossing the lesion, stiff wire exchange
Technique (Cont, d)

Dilatation of the entire tract with 14-mm balloon
Technique (Cont,d)

Venogram after dilatation of the tract and before placement of the stent
Stent placement well up into the IVC and down to CFV bifurcation
Stent overlap
Stent overlap
Stent overlap
Technique (Cont,d)

Post stent dilatation to ensure apposition to the vessel wall and to avoid migration.
Technique (Cont, d)

Venogram pre and post intervention
Results

• Patients were followed-up for 1, 3, 6, and 12 months.
• One patient was lost for follow up.
• During each visit, patients were checked for symptomatic improvement, daily activities and duplex ultrasound was performed.
Results (Cont,d)

• Nine out of Eleven stents were patent during the follow-up by duplex.
• Two patients had duplex reported “restenosis” of their stents at 9 and 12 months. This was found by intraoperative venography to be a soft external iliac vein lesion that responded well to balloon dilatation only.
Results (Cont, d)

• All patients reported marked improvement of their pain and swelling with return to normal daily activities.
Conclusion

- Endovascular treatment of chronic iliacaval obstruction is feasible.
- Paying attention to details and patience are crucial for success.
- Post-thrombotic syndrome is a debilitating problem to the patient that needs further attention from health care professionals.
Thank you
Thank you