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# Midterm results of tunneled catheter placement in haemodialysis patients with central venous stenosis or occlusion

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# Disclosure

Speaker name:

Prof Dr Hassan Lotfy

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

# End stage renal disease (ESRD)

- ESRD patients number is continuously increasing in Egypt.
- Haemodialysis is the main line of treatment for those patients due to lack of adequate number of kidney donors.

- Unfortunately non-tunneled catheter is used extensively for dialysis before constructing a permanent vascular access.
- This is the most common cause of central venous occlusion. This could interfere with any future planning for AVF.
- The highest incidence of occlusion occurs with subclavian catheters (42 -50%) followed by internal jugular vein catheters .

- Catheter-induced trauma

to the venous endothelium with secondary inflammatory damage within the vessel wall.

- Other proposed mechanisms include

increased flow and turbulence from the creation of an AV access which initiates inflammatory response and stimulate intimal hyperplasia.

# Methods

## Recanalization of occluded vein

All patients had CTV to confirm DUS finding.

All cases were operated under local analgesia with sedation if needed

## Access

- US guided through a nearby patent vein mainly distal patent part of SCV , patent part of basilic vein, or through a functioning AV access.
- Femoral access (Rendez-vous technique).

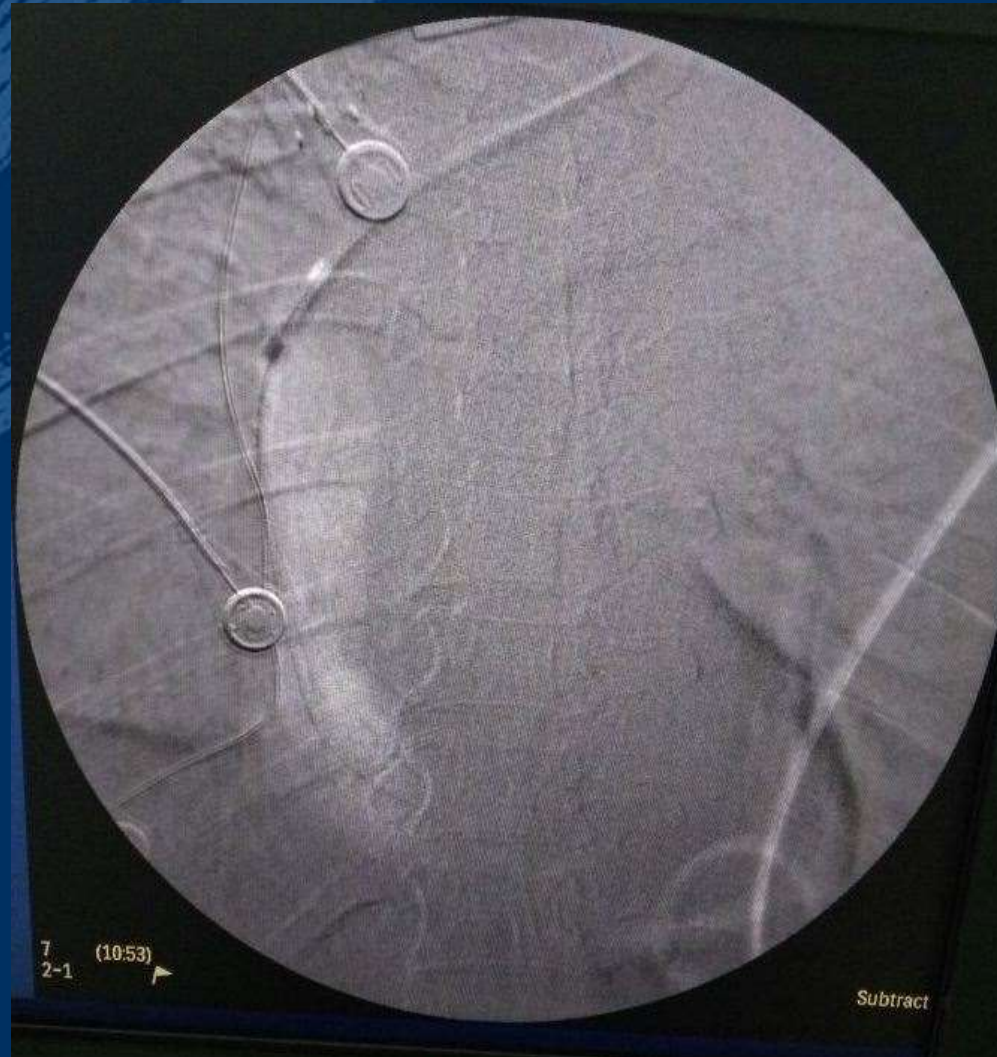
- Venogram
- Crossing the lesion till IVC to insure stable access.
- Exchange guide wire for a stiffer one to a few centimeters passing the lesion.
- Balloon dilatation.
- Repeat venogram.
- After ensuring patent central vein, the tunneled catheter is inserted over the wire or through another percutaneous puncture.

# The initial diagnostic venogram

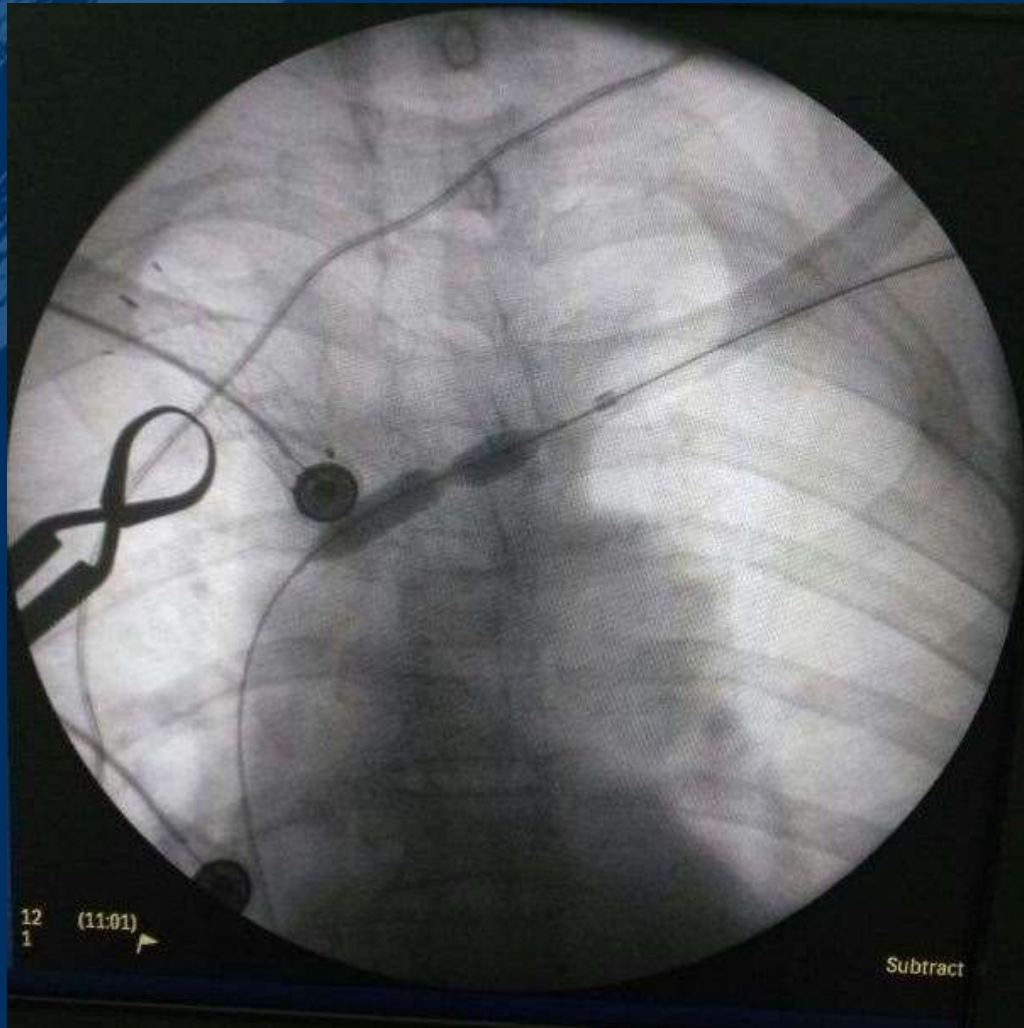




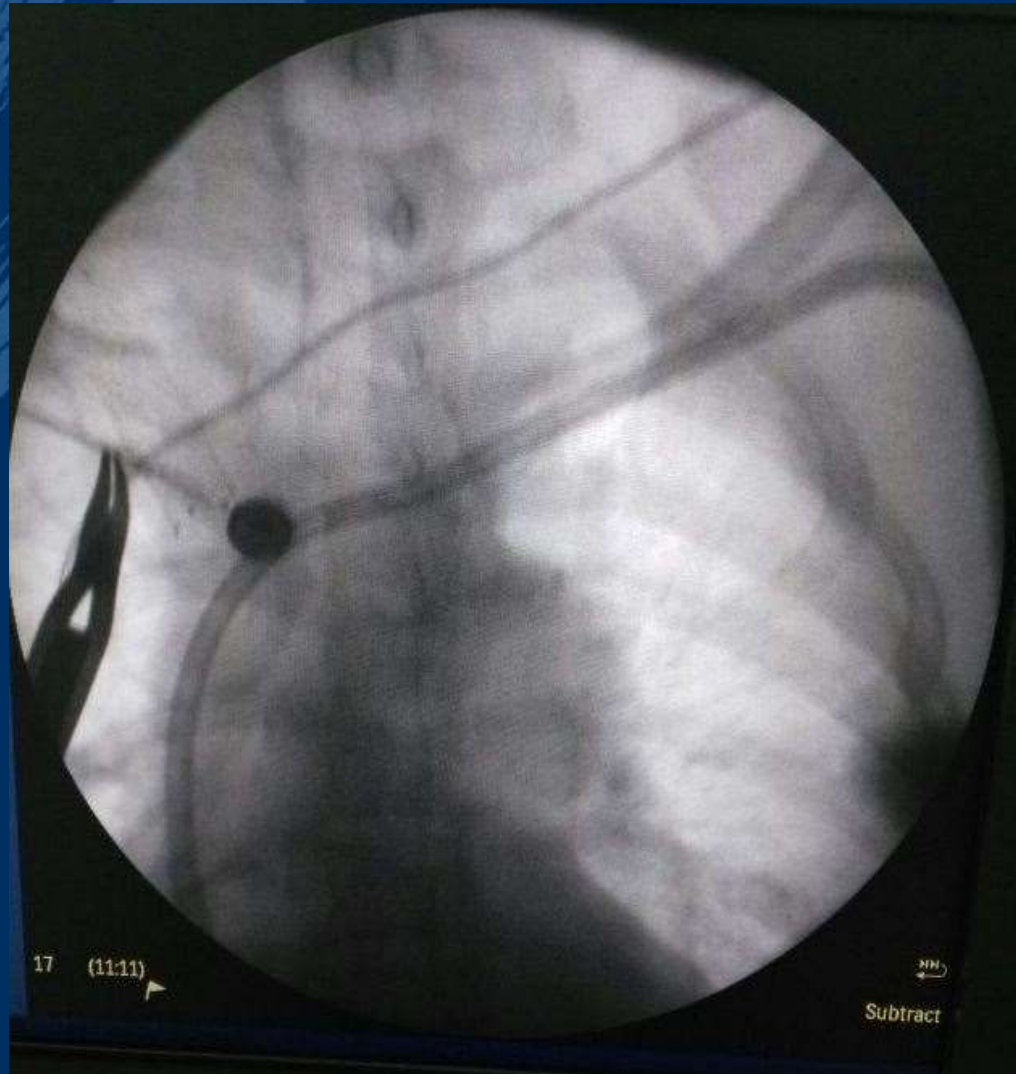
# Venogram after wire and catheter passage



# Balloon dilatation of the innominate vein



# Placement of tunneled catheter



# Results

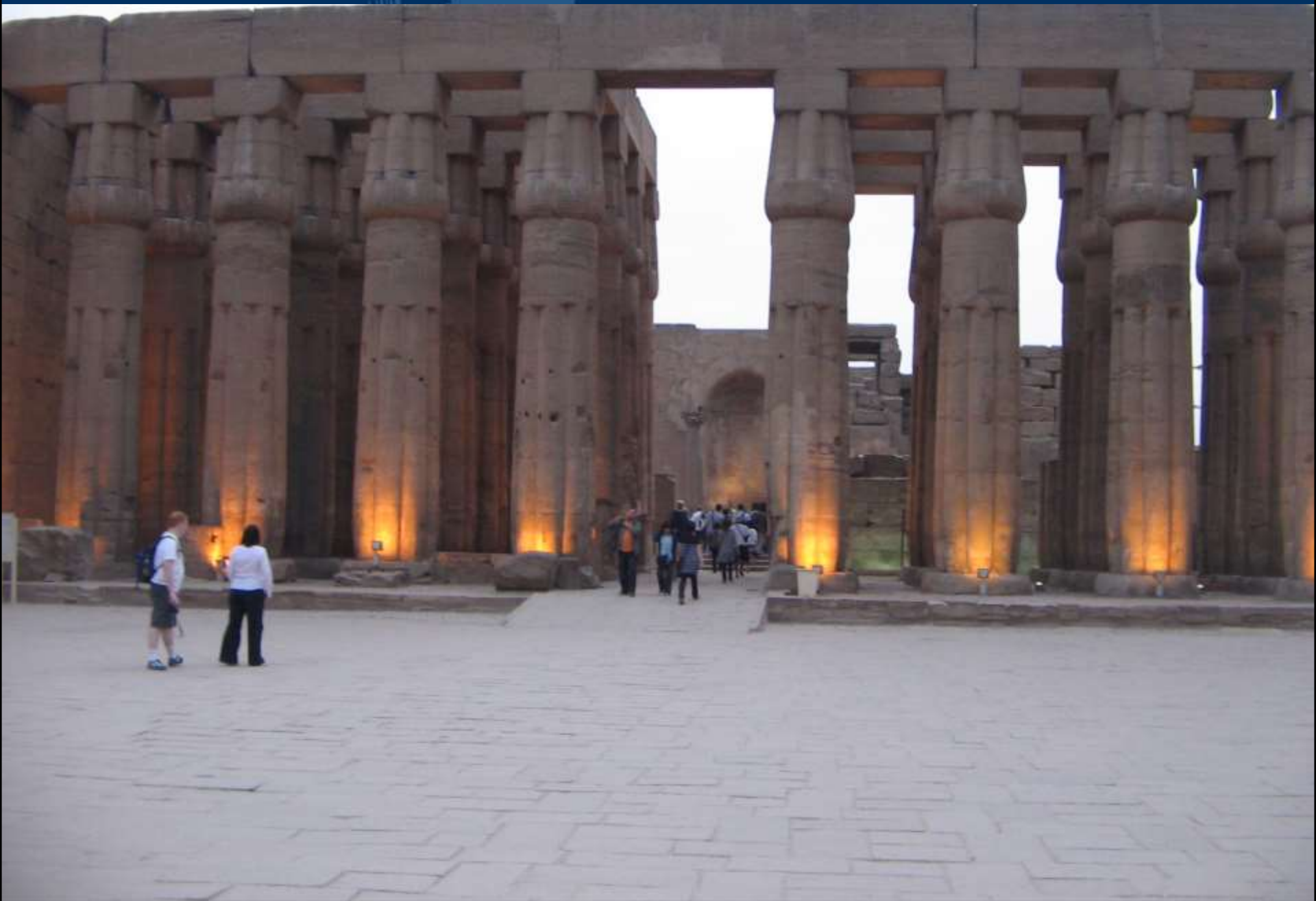
- 30 patients were included in the study.
- The mean age was 53.2 ( $\pm$ 5.2) (47y-63y).
- 16 patients were males and 14 were females.
- 21 Cases with central venous occlusion, 9 cases with central venous stenosis .
- 21 cases subclavian vein and 9 innominate vein.

- All cases were treated by angioplasty only without stenting.
- Technical success rate was 85% with failure in 15% due to inability to pass the wire. All of them was in group of patients who had occlusion.
- No complication occurred.

- All patients followed up as regard adequacy of dialysis session through the inserted catheter for one year with 100% adequately functioning catheter.

## Conclusion

- Dilatation of occluded central veins followed by permanent catheter insertion can be achieved by endovascular method with an acceptable technical and long term success rate.
- This technique could be used as a bailout for patients with no access for dialysis .







Thank you

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