Controversy. US or angiography guided PTA

Using US and angiography is more efficient
Disclosure

Speaker name:

...JOSE GARCIA-MEDINA

- I have the following potential conflicts of interest to report:
  - X Consulting Angiomed GmbH & CO
  - Employment in industry
  - Shareholder in a healthcare company
  - Owner of a healthcare company
  - Other(s)

- I do not have any potential conflict of interest
ANGIOGRAPHY

• Radiological explorations.
• Imaging of the vessels with injection of contrast media.
FISTULOGRAPHY
ULTRASOUND-GUIDED ANGIOPLASTY

- To avoid material contrast.
- To avoid X-ray.
- To reduce costs.
More than two hands are needed to perform the procedure.
US-GUIDED PTA. DISADVANTAGES

Ultrasonography does not provide the fistula panoramic view as fluoroscopy.
US-GUIDED PTA. DISADVANTAGES

Difficulties to traverse and to progress the wire from the vein into the proximal artery through the anastomosis.
To enter a wrong way, take a collateral and dilate it with the risk of rupture.
The guidewire easily coils into aneurysms.
Severe stenosis may require the assistance of fluoroscopy.
Rupture post PTA
US-GUIDED PTA. OURS INDICATIONS

- Restenosis in already known fistulae.
- Nonmature Fistulas.
- Thromboses.
- Prosthetic grafts.
- Patients in pre-dialysis.
- Patients with contrast material sensitivity.
US-GUIDED PTA. OURS INDICATIONS

• Restenosis in already known fistulae.
US-GUIDED PTA. OURS INDICATIONS

• Thromboses.

Value of Duplex Ultrasound Assistance for Thromboaspiration and Dilation of Thrombosed Native Arterio-Venous Fistulae

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US-GUIDED PTA. OURS INDICATIONS

• Thromboses.

US-GUIDED PTA. OURS INDICATIONS

• Thromboses.

Catheter is placed in thrombosed area

After thrombo aspiration, the vein is free of clots

US-GUIDED PTA. OURS INDICATIONS

- Prosthetic grafts.
US-GUIDED PTA. **OURS INDICATIONS**

- Prosthetic grafts.
US-GUIDED PTA. OURS INDICATIONS

• Prosthetic grafts.
US-GUIDED PTA. OURS INDICATIONS

• Stent implantation
Ultrasound-Guided Angioplasty of Dysfunctional Vascular Access for Haemodialysis. The Pros and Cons

J. García-Medina¹, J. J. García-Alfonso²
USING US AND ANGIOGRAPHY IS MORE EFFICIENT

- Ultrasound examination
- Ultrasound-guided or US plus fluoroscopy
- Lead apron X-ray protection

**Ultrasound-Guided Angioplasty of Dysfunctional Vascular Access for Haemodialysis. The Pros and Cons.**
García-Medina J, García-Alfonso JJ.
USING US AND ANGIOGRAPHY IS MORE EFFICIENT

- To fully evaluate the vascular access haemodynamics from aortic arch to superior vena cava with fistulography.
- To traverse large aneurysms.
- When Ultrasound-guidance is non feasible.

To fully evaluate the vascular access haemodynamics from aortic arch to superior vena cava with fistulography.
Using US and Angiography is more efficient.

García-Medina J, García-Alfonso JJ.
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CONCLUSION

• Doppler colour ultrasound (alone or in combination with fluoroscopy) is a useful tool for endovascular treatment of vascular accesses stenosis.

• However, it cannot be claimed today that ultrasound can replace fluoroscopy in all cases.

• Technical difficulties may occur during the procedure, which suggests remaining cautious.

• The performance of ultrasound-guided angioplasty must be made by a well-trained interventional radiologist.
Merci beaucoup
Thank you very much