OFF-LABEL USE OF SUTURE-MEDIATED CLOSURE SYSTEM AS BAILOUT IN ARTERIAL IATROGENIC LESIONS: CASE REPORT

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Disclosure

Speaker name: Ricardo Castro-ferreira

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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

- Suture-Mediated Closure Systems (SMCS) are gaining popularity
  - Easy to deploy, safe and effective
  - Reduces surgical wound complications
  - Reduces operation time
  - Reduces blood loss
  - Reduces length of hospital stay
  - Allows EVAR with local anesthesia in high risk patients
  - (...)

Its usefulness may not be only for percutaneous intervention
The widespread use of renal replacement therapy (RRT) in intensive care units (ICU) is increasing the risk of vascular access iatrogenic complications. Surgical repair in those circumstances may be particularly challenging:

- Technical issues
- Patients’ critical condition
Clinical Case

- A 69 years old female patient was electively admitted for open aortic valve replacement surgery
  - History of Insulin-dependent type 2 Diabetes, type 4 chronic kidney dysfunction, hypertension and morbid obesity

The postoperative period was complicated by cardiogenic shock with acute respiratory insufficiency and acute kidney failure
Clinical Case

- A 13F hemodialysis catheter for RRT was placed in the right neck and patient started hemodialysis.

The sheath was inadvertently inserted in the left common carotid artery.
Clinical Case

- A 13F hemodialysis catheter for RRT was placed in the right neck and patient started hemodialysis. The sheath was inadvertently inserted in the left common carotid artery.
Clinical Case
Clinical Case

- We have a critically ill patient, with a hostile neck, and with a 13F catheter inside the carotid artery ...
Clinical Case

What to do...?
Clinical Case
Clinical Case

- A PTFE guidewire was introduced through the 13F sheath and the sheath was removed, leaving the guidewire in the CCA

- Two ProGlide (Abbott) were then delivered and hemostasis achieved

The procedure was entirely performed in the ICU patient’s bed
Clinical Case

The carotid patency and integrity was confirmed by duplex scan and no complications occurred.
Conclusion

- Open surgery for arterial iatrogenic lesions has risks and difficulties

- Using SMCS allowed a fast and creative solution in the patient’s own bed

This clinical case illustrates how endovascular technology can often be applied off-label and provide simple solutions to highly complex situations
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