

CONTROVERSES ET ACTUALITÉS EN CHIRURGIE VASCULAIRE  
CONTROVERSIES & UPDATES IN VASCULAR SURGERY

JANUARY 19-21 2017

MARRIOTT RIVE GAUCHE & CONFERENCE CENTER

PARIS, FRANCE



How do you get access from above:  
*brachial, axillary, subclavian, conduit or  
multiple punctures?*  
*Right side or left side?*

Ross Milner, MD

Professor of Surgery

Co-Director, Center for Aortic Diseases



## Disclosure

Speaker name: Ross Milner

.....

- I have the following potential conflicts of interest to report:
- Consulting: Cook, Endospan, Medtronic, WL Gore
- Employment in industry
- Shareholder in a healthcare company
- Owner of a healthcare company
- Other(s)
- I do not have any potential conflict of interest



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Kindly partially s



*I did not vote for Trump*





*Tweet from 20/1/17:*



# *Tweet from 20/1/17:*



**Donald J. Trump** 

@realDonaldTrump

 Follow

***Dr. Ross Milner: Not voting for me was  
a big mistake! And, I hope your talk  
really sucks in Paris!***



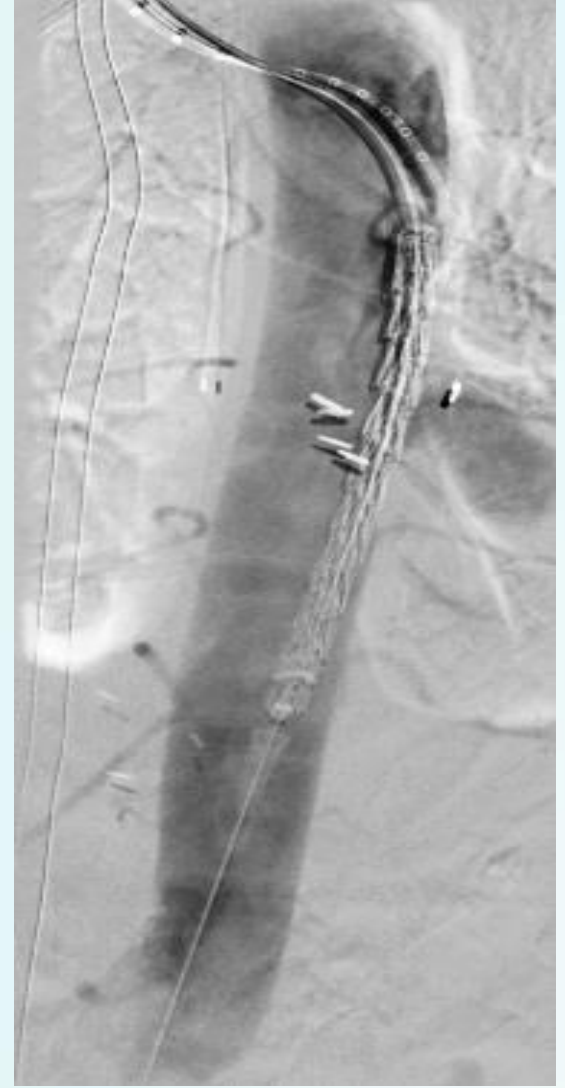
# Upper extremity access

- Important adjunct for complex endovascular aortic procedures:
  - ChEVAR
  - FEVAR
  - TEVAR?





# Penetrating Aortic Ulcer





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# Completion Angiogram





# Overview

- Which vessel?
- Direct puncture or conduit?
- Which side?



# Overview

- Which vessel?
- Direct puncture or conduit?
- Which side?

# Brachial, axillary, or subclavian?





# Brachial, axillary, or subclavian?

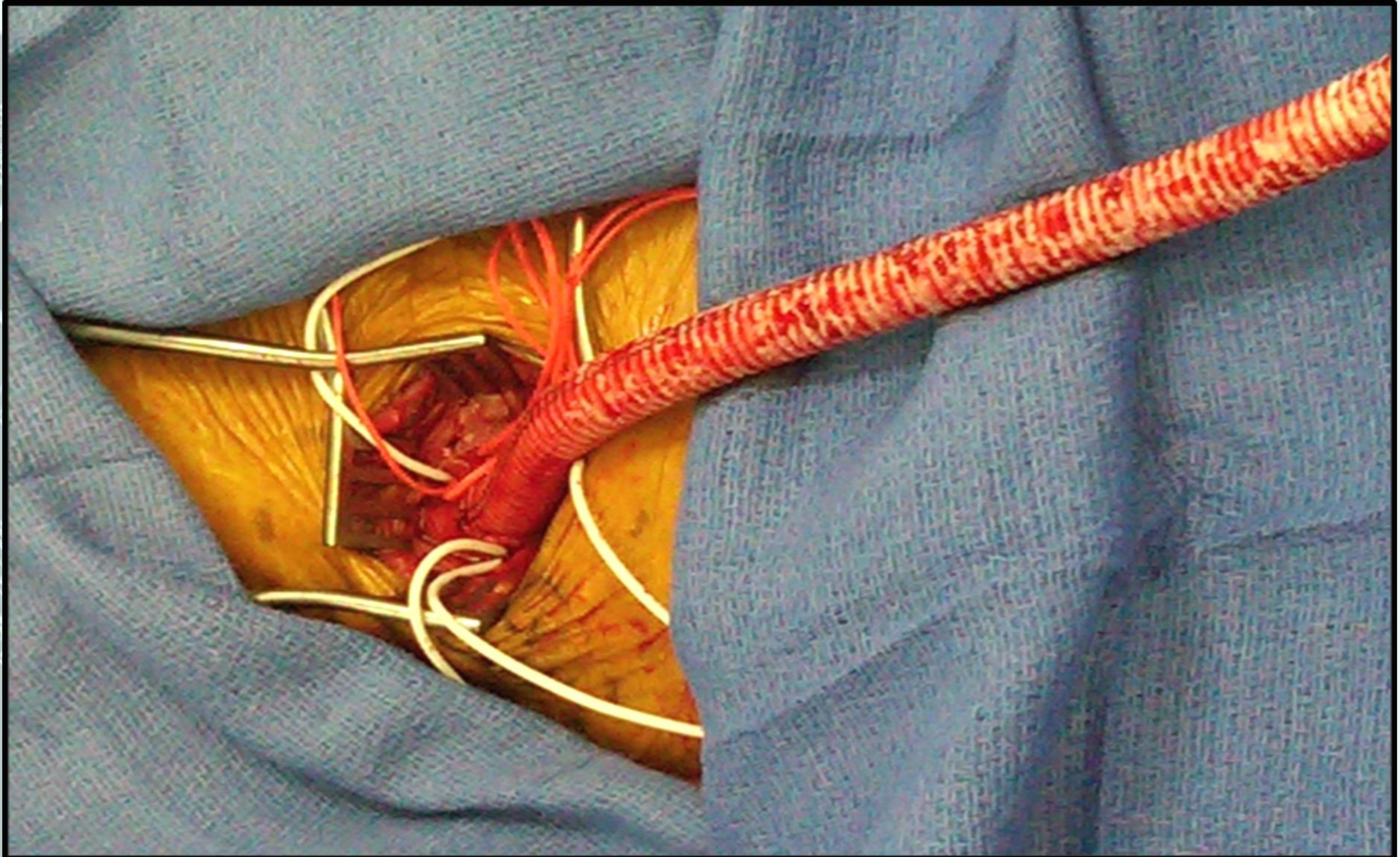
- Left or right arm out - makes full lateral imaging a challenge
- Patient prep is easier
- Anesthesia doctor can use both arms
- Subclavian artery angle can be challenging and brachial artery is small

# Axillary Artery Conduit

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# Brachial, axillary, or subclavian?

- Left or right arm out - makes full lateral imaging a challenge
- Patient prep is easier
- Anesthesia doctor can use both arms
- Subclavian artery angle can be challenging and brachial artery is small
- **Axillary!**





# Overview

- Which vessel?
- Direct puncture or conduit?
- Which side?



# Direct puncture or conduit?

- 1 or 2 sheaths – direct arterial puncture through a previously placed purse-string with a pledget



# Direct puncture or conduit?

- 1 or 2 sheaths – direct arterial puncture through a previously placed purse-string with a pledget
- > 2 sheaths: I prefer an axillary conduit

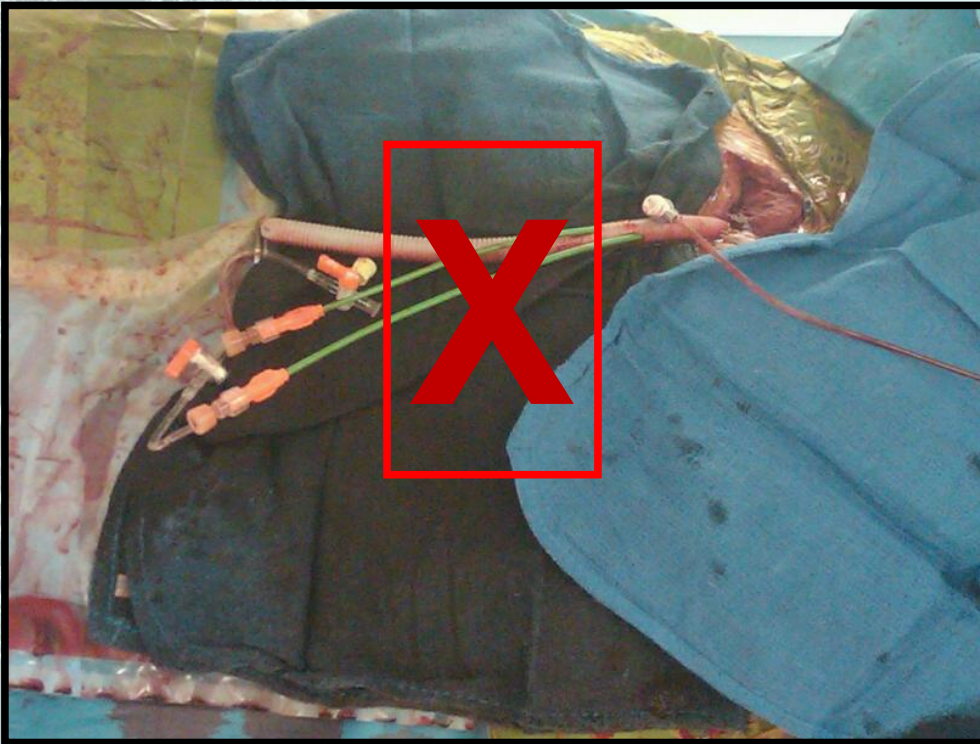


# Conduit choice?





# Conduit choice?





# Overview

- Which vessel?
- Direct puncture or conduit?
- Which side?



# Which side?

- 4 sheaths can be placed on one side

# 4 Sheaths - labeled

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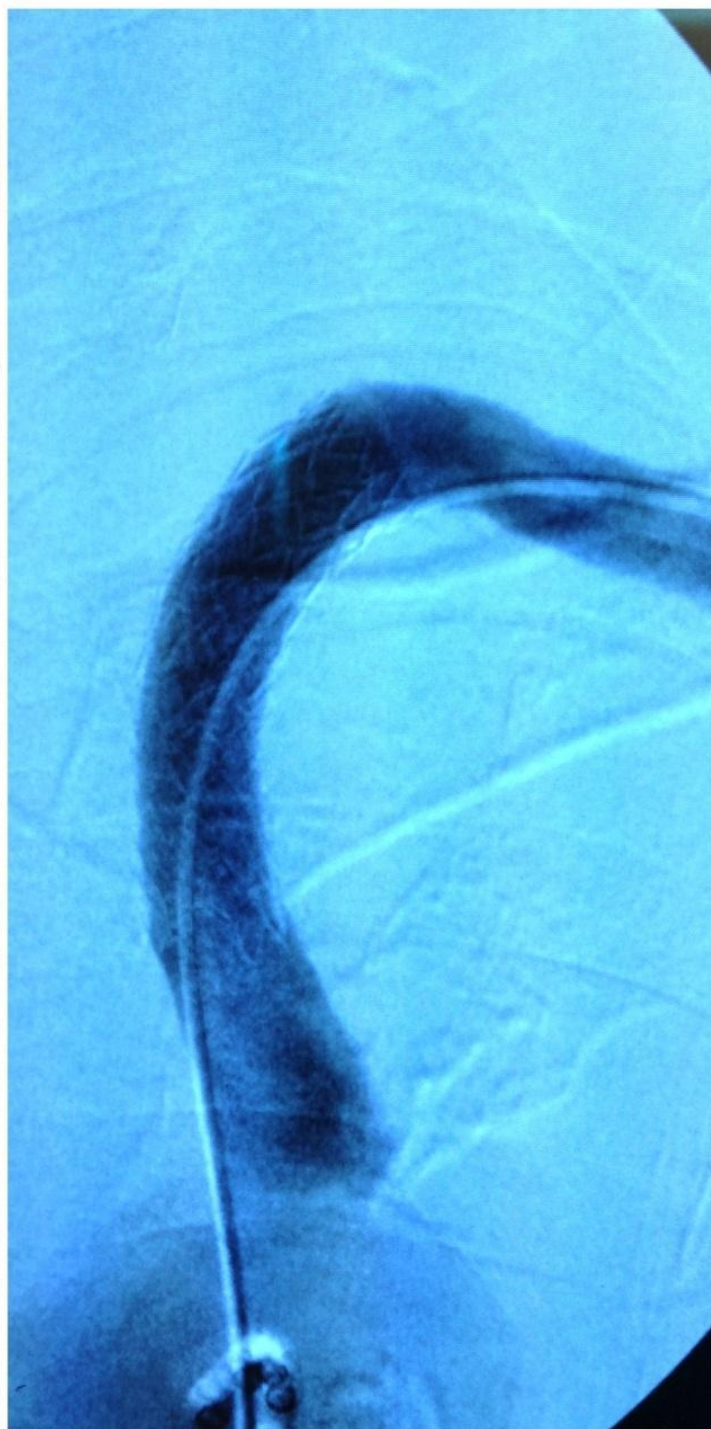
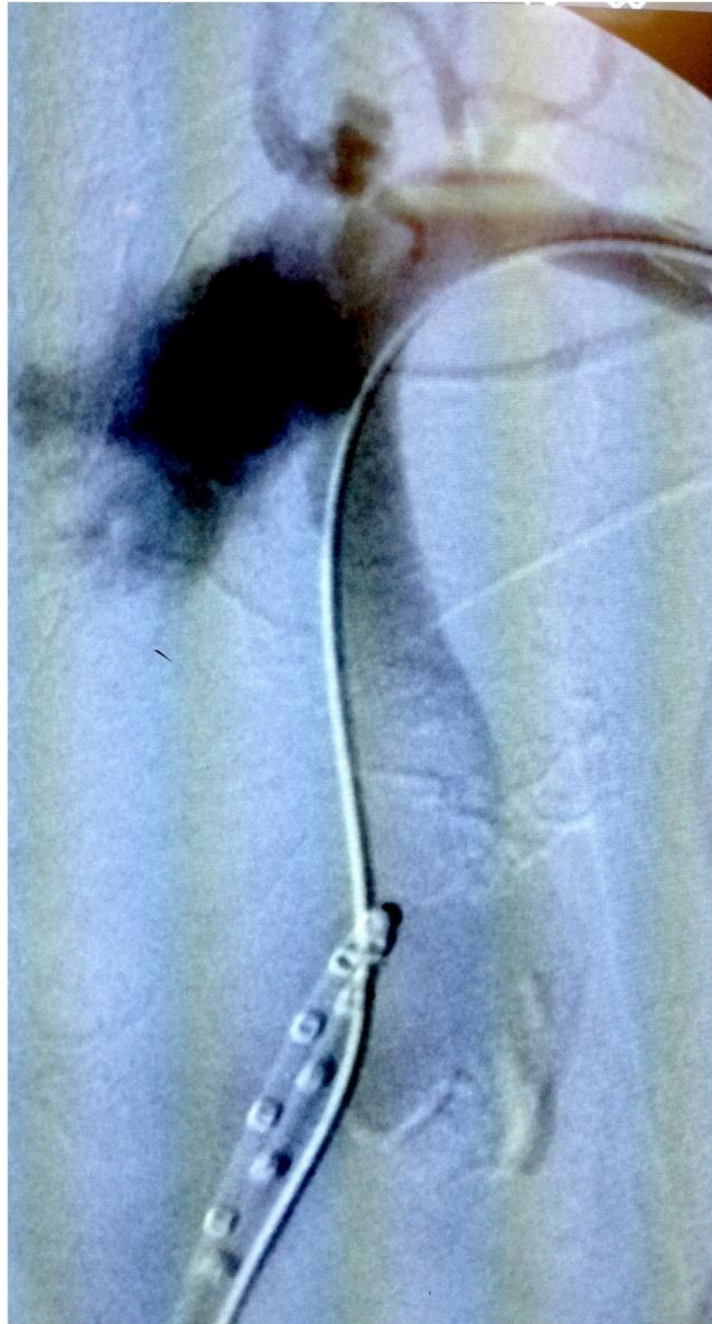
# Which side?

- Anecdotally, right side is less safe due to stroke risk
- But, it is easier to work from the right side due to C-arm



# Complications

- One subclavian artery rupture – *left side*



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# Complications

- One subclavian artery rupture – *left side*
- One stroke – left side (fatal)



# Which side?

- Right side is safe in terms of neurologic outcomes
- May be more challenging to cannulate visceral vessels due arch tortuosity (type 3 arch) and renal artery location



# Which side?

- Right side is safe in terms of neurologic outcomes
- May be more challenging to cannulate visceral vessels due arch tortuosity (type 3 arch) and renal artery location
- **Right side!**



# Conclusions

- Which vessel? - *axillary*
- Direct puncture or conduit?
- Which side?



# Conclusions

- Which vessel? - *axillary*
- Direct puncture or conduit? – *either/both*
- Which side?





# Conclusions

- Which vessel? - *axillary*
- Direct puncture or conduit? – either/both
- Which side? – *right (debatable)*



Thank you!



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