

CONTROVERSIES & UPDATES IN VASCULAR SURGERY  
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# Deep vein obstruction correction: how to avoid bad results, how to manage complications?

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# Deep vein obstruction correction



How to avoid bad results?

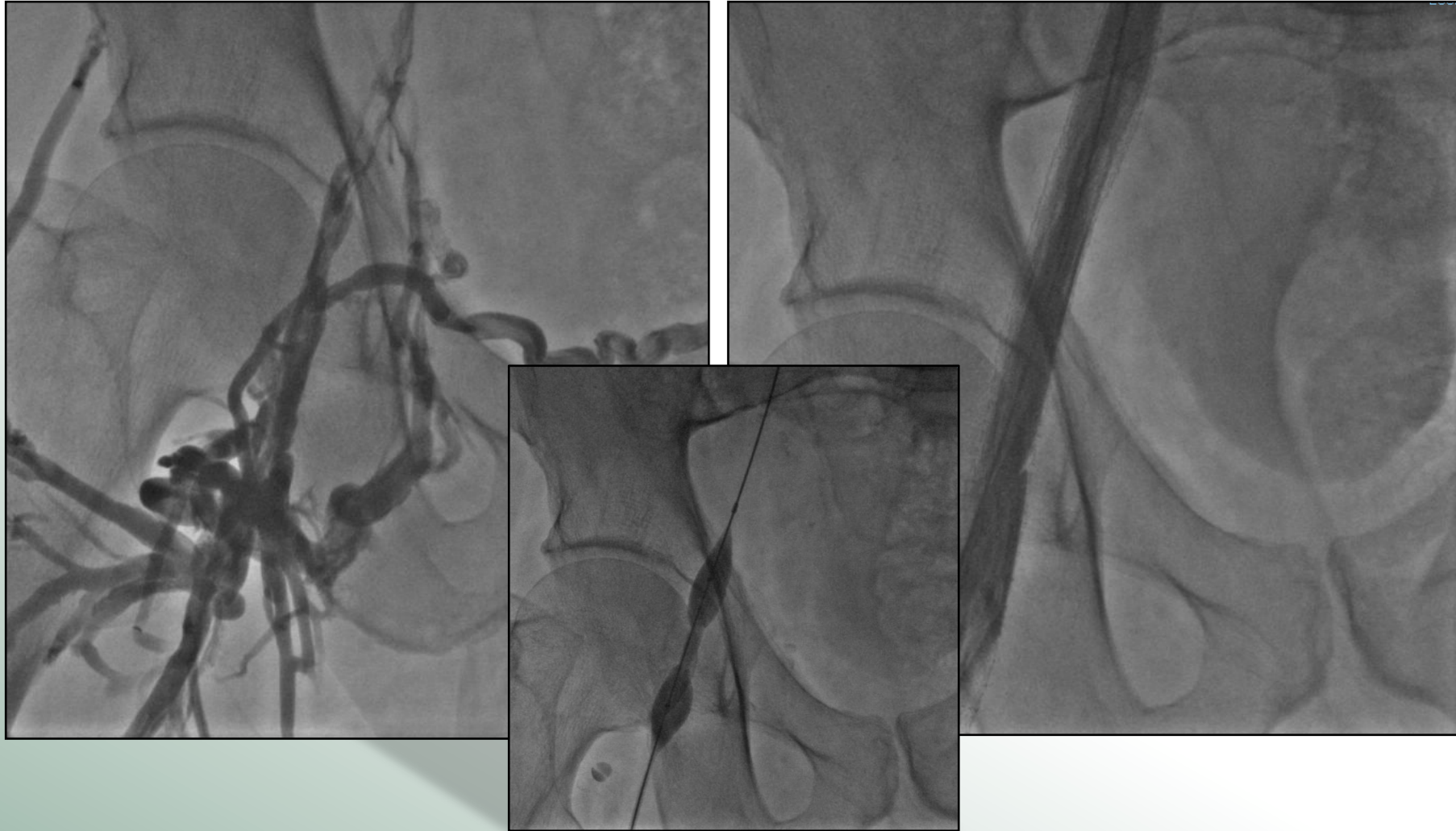
- clinical
- technical

# Deep vein obstruction correction

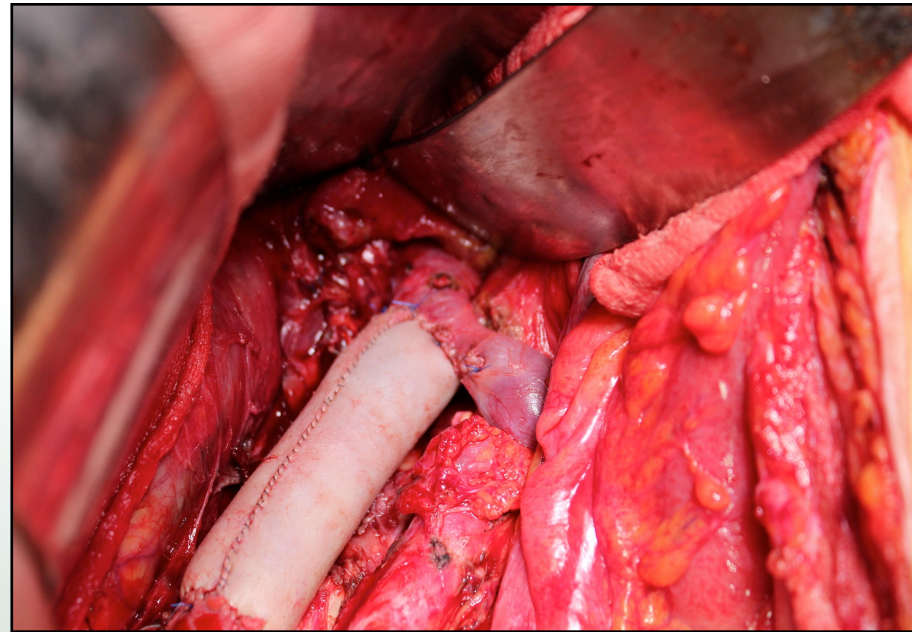
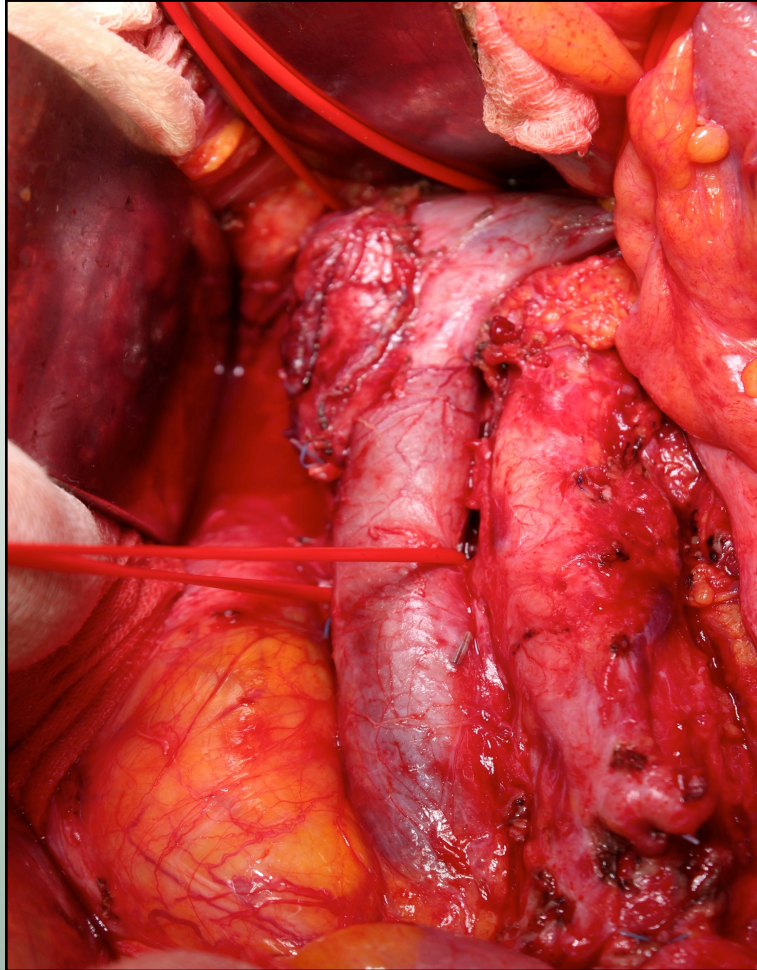
**no difference**

a bad technical result will determine  
a bad clinical outcome.

# Venoplasty/ stenting



# Cava open surgery still has a place



## Deep vein obstruction correction: *how to avoid bad results*

- 1) ensure an adequate inflow
- 2) provide a complete lesion treatment
- 3) apply a correct technique
- 4) provide appropriate materials and setting
- 5) ensure a rigorous diagnostic protocol

# Deep vein obstruction correction: *how to avoid bad results*

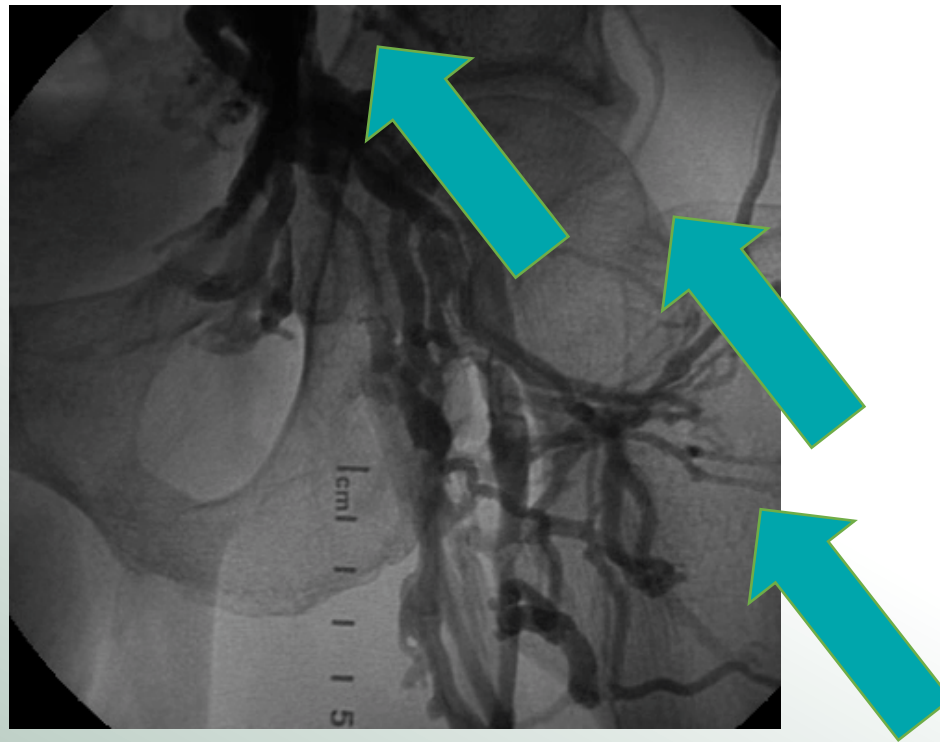
## 1) ensure an adequate inflow



Deep femoral and  
femoral vein  
confluence

# Deep vein obstruction correction: *how to avoid bad results*

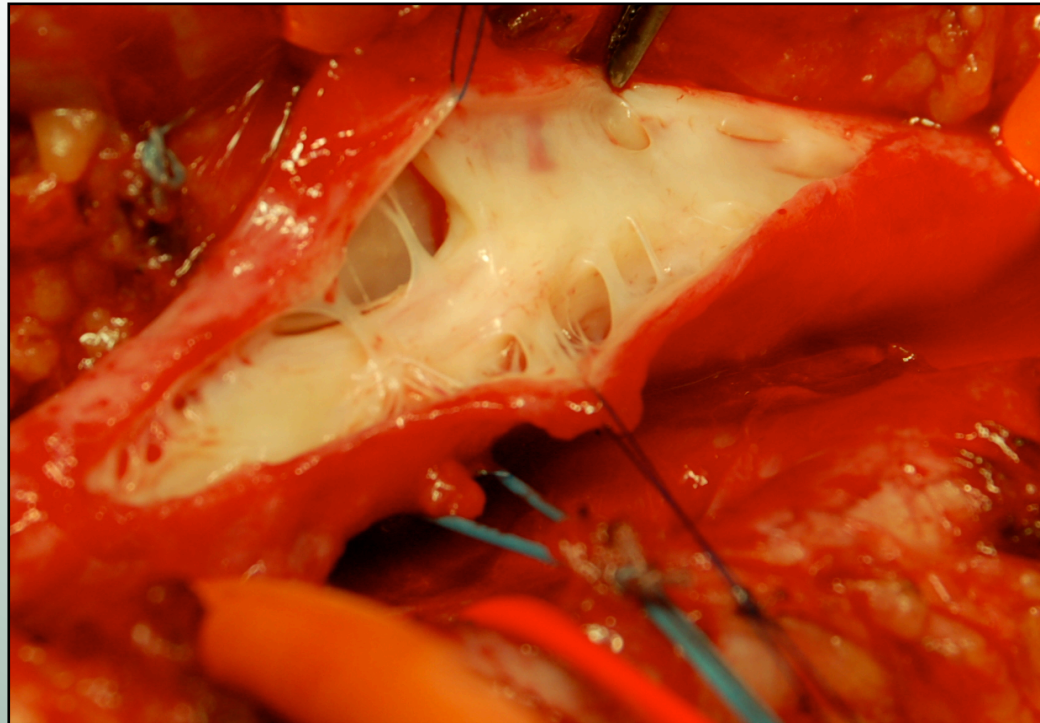
## 1) ensure an adequate inflow





# Deep vein obstruction correction: *how to avoid bad results*

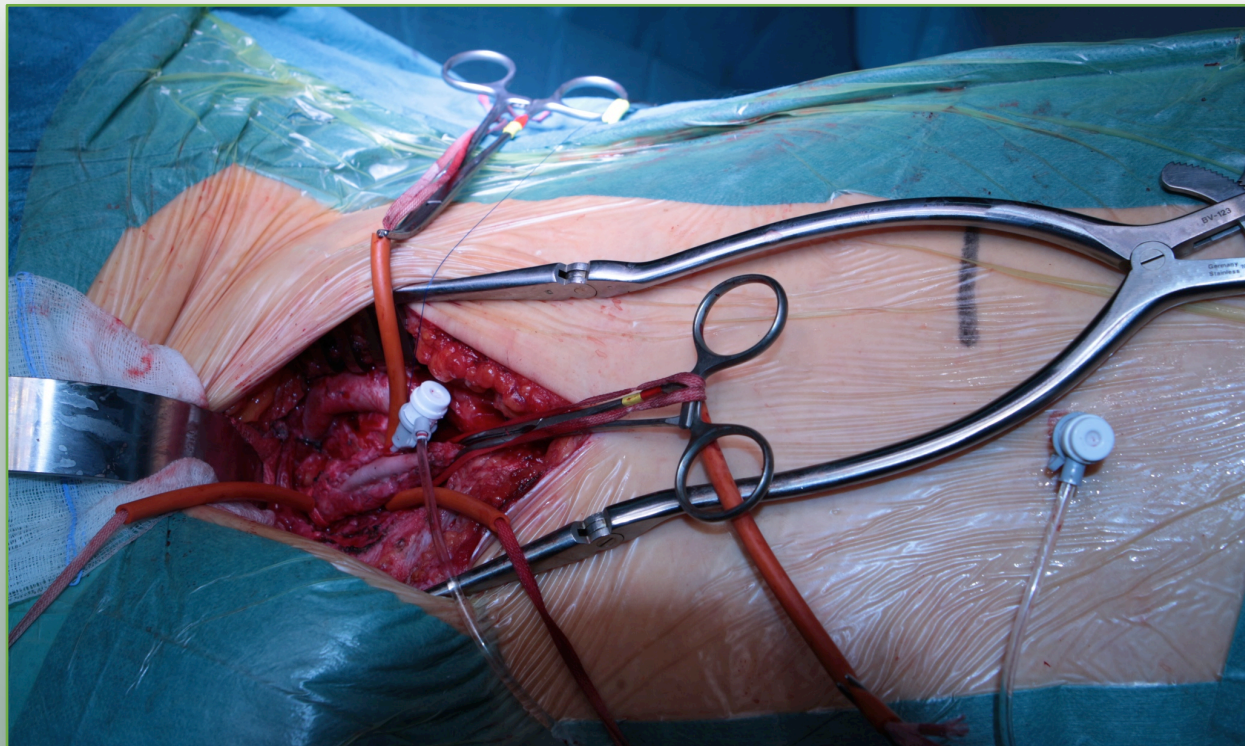
## 1) ensure an adequate inflow



CVF fibrotic  
tissue

# Deep vein obstruction correction: *how to avoid bad results*

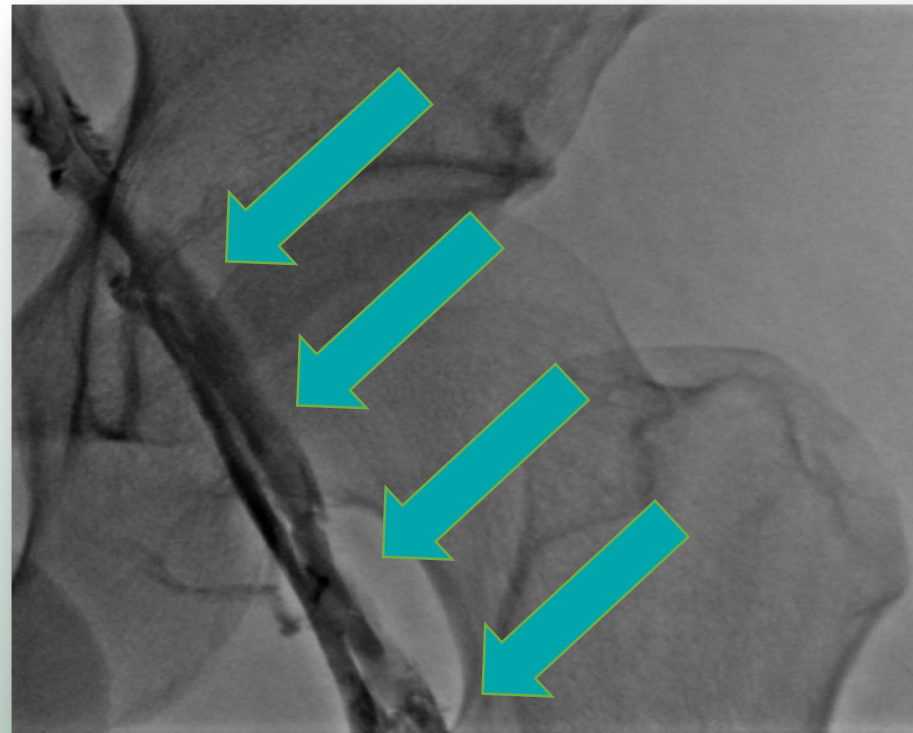
## 1) ensure an adequate inflow



*Hybrid technique*  
endophlebectomy  
+ stenting

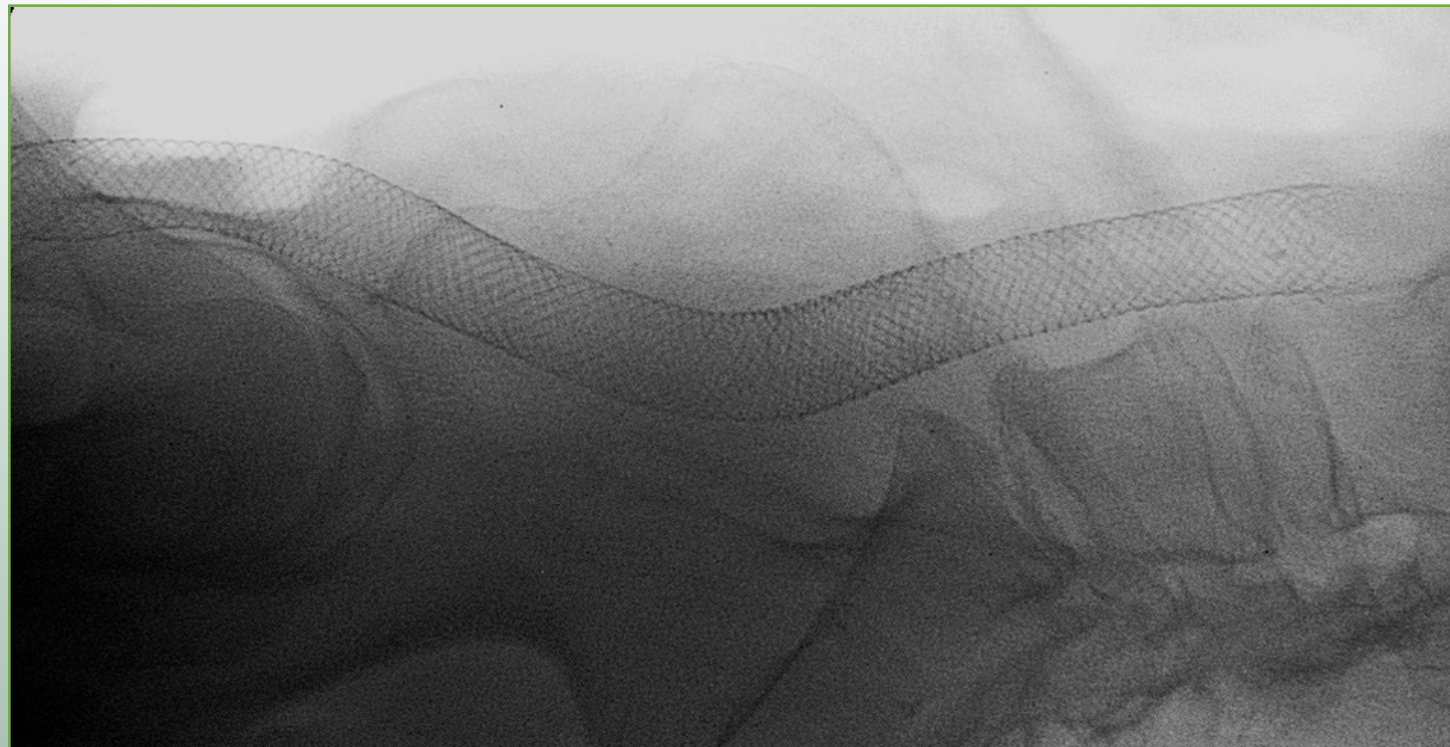
## Deep vein obstruction correction: *how to avoid bad results*

2) provide a complete lesion treatment



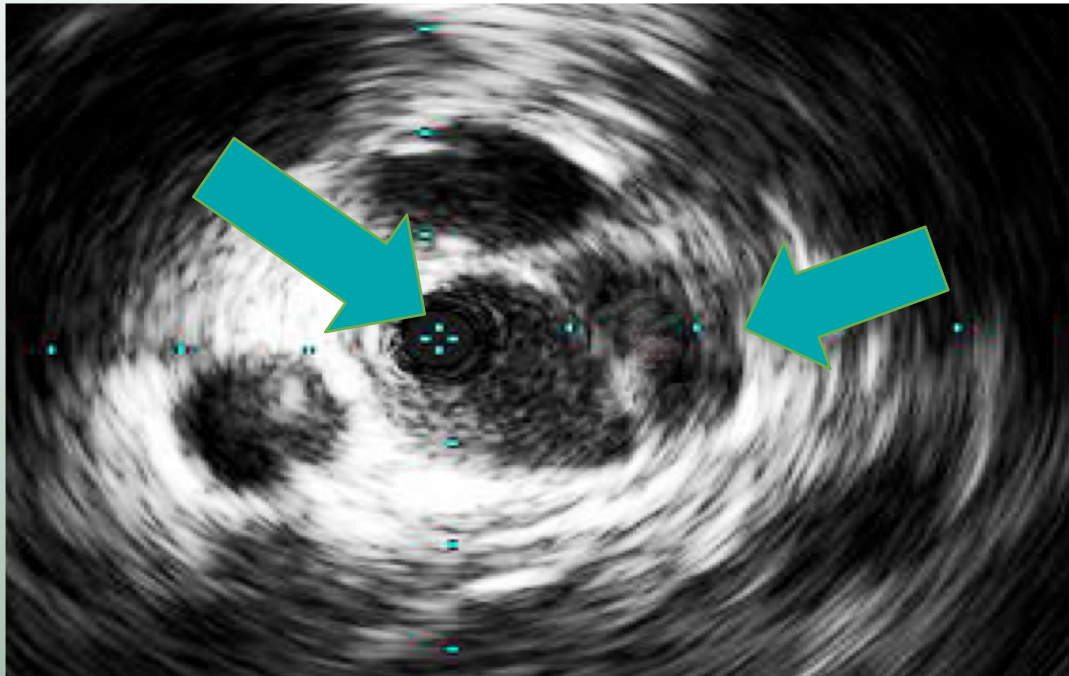
Deep vein obstruction correction: *how to avoid bad results*

2) provide a complete lesion treatment



## Deep vein obstruction correction: *how to avoid bad results*

2) provide a complete lesion treatment



cava (IVUS)

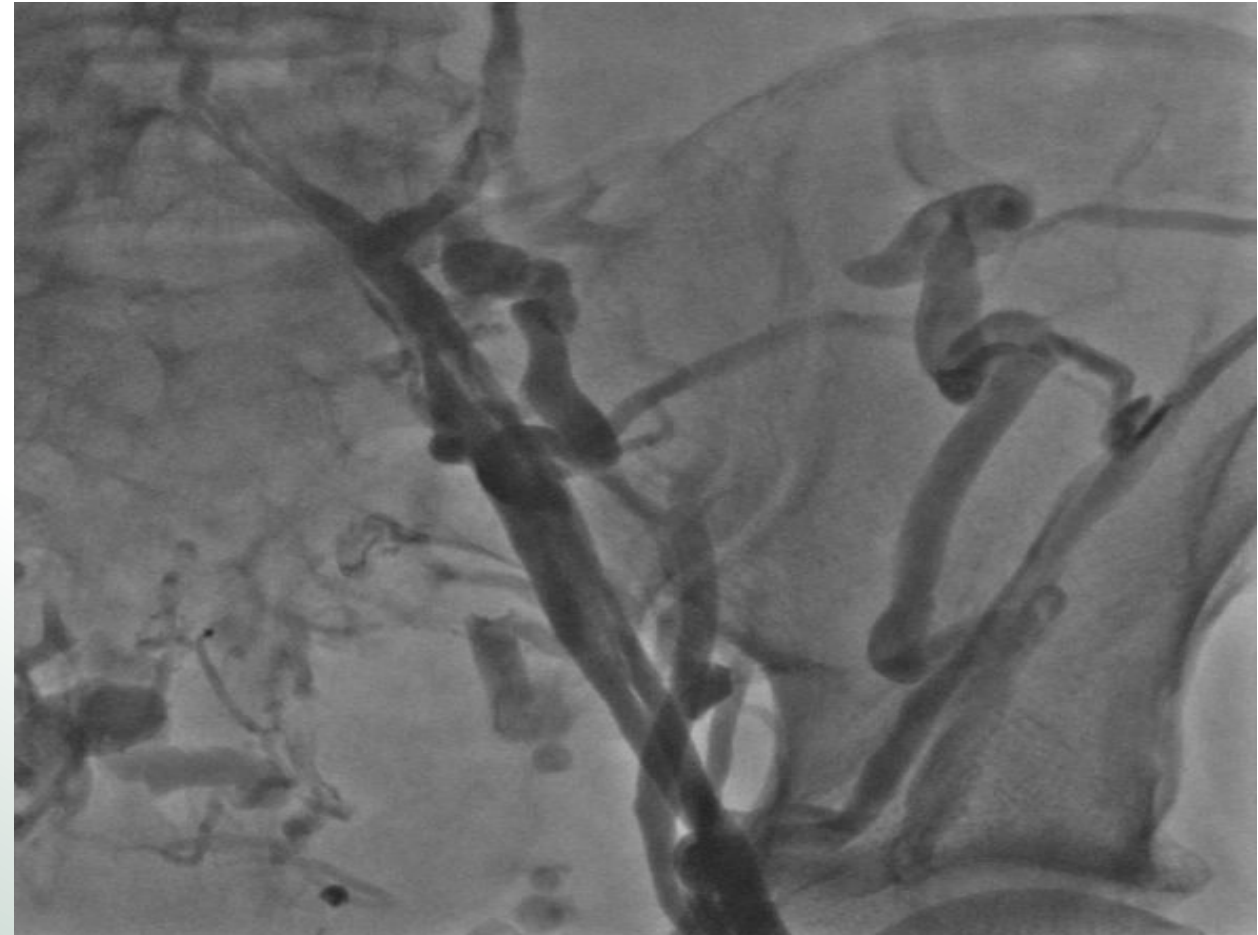
*double channel*

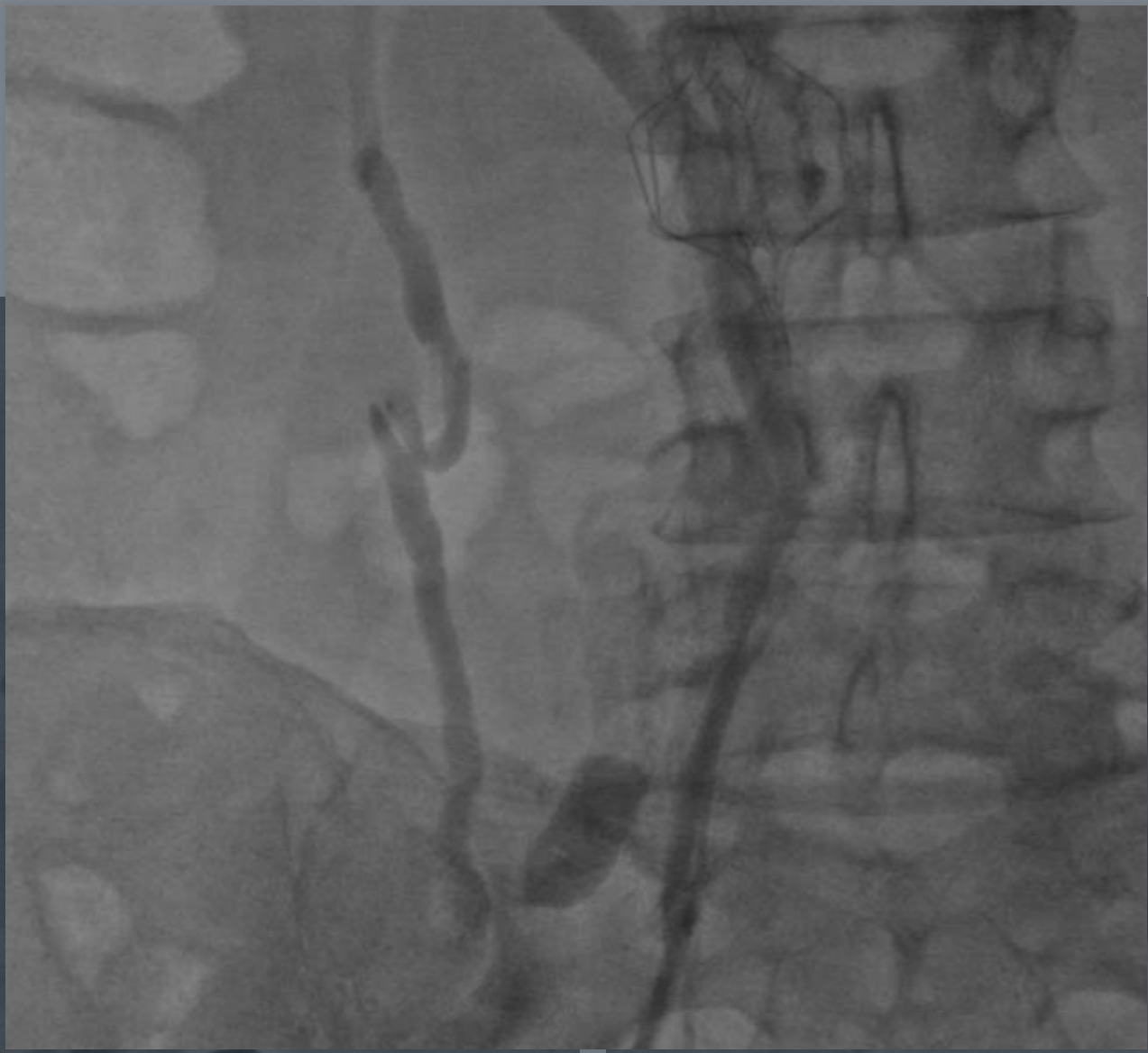
## Deep vein obstruction correction: *how to avoid bad results*

### 3) apply a correct technique

While angioplasty basic technique is the same in arteries and veins, in venoplasty some elements are strongly different and essential for procedural success

# anatomy understanding



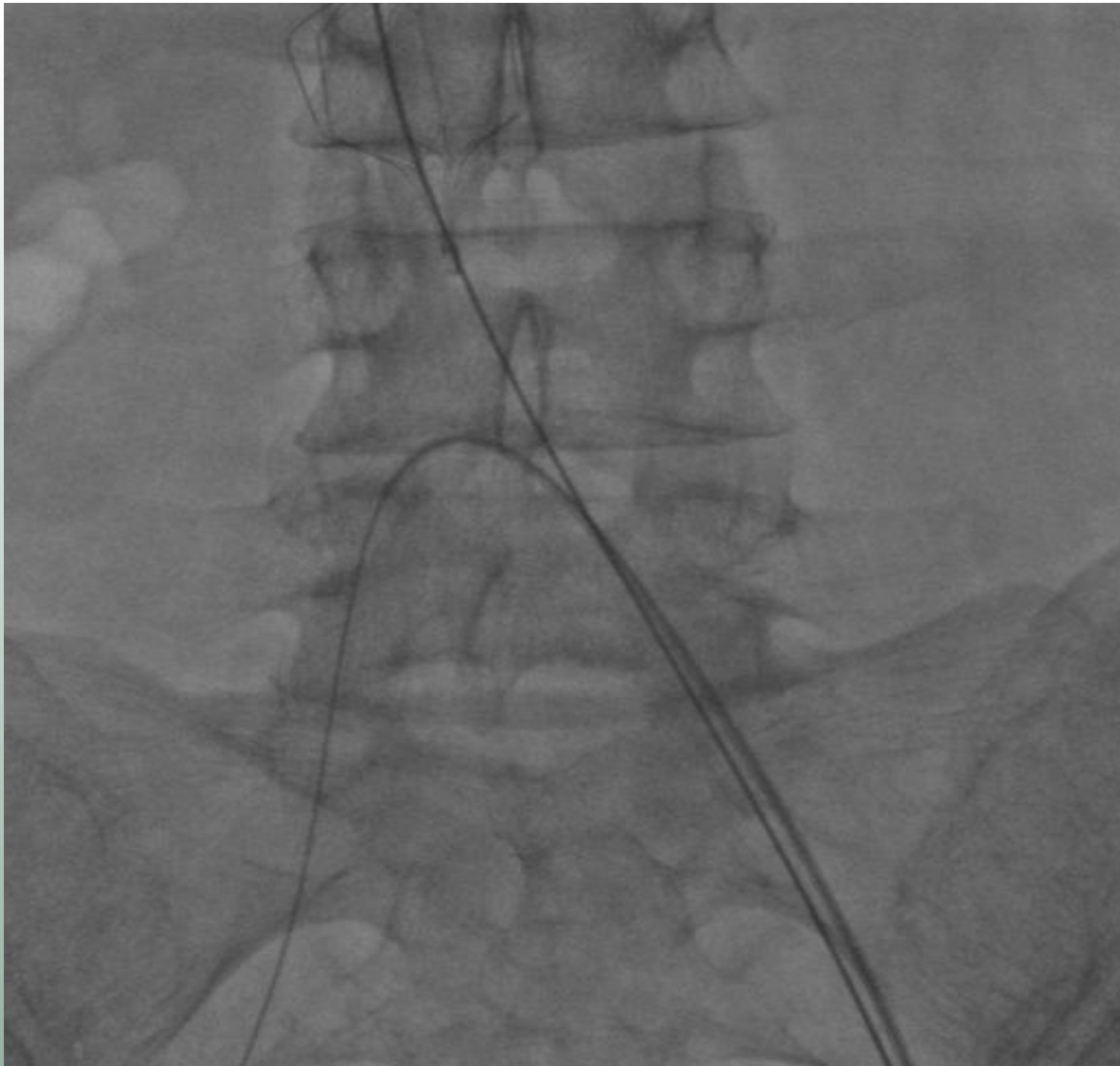


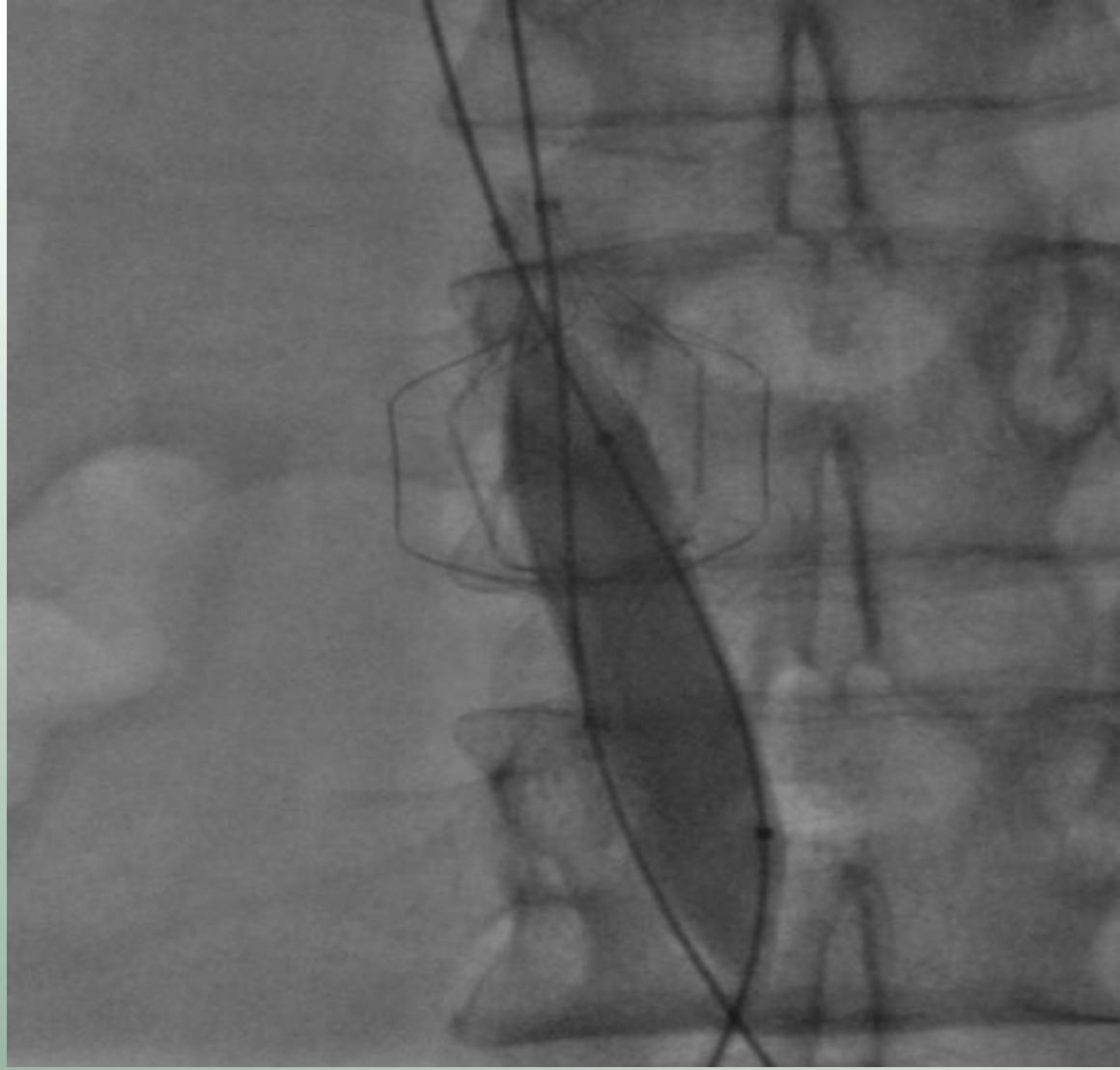


# basic angioplasty technique

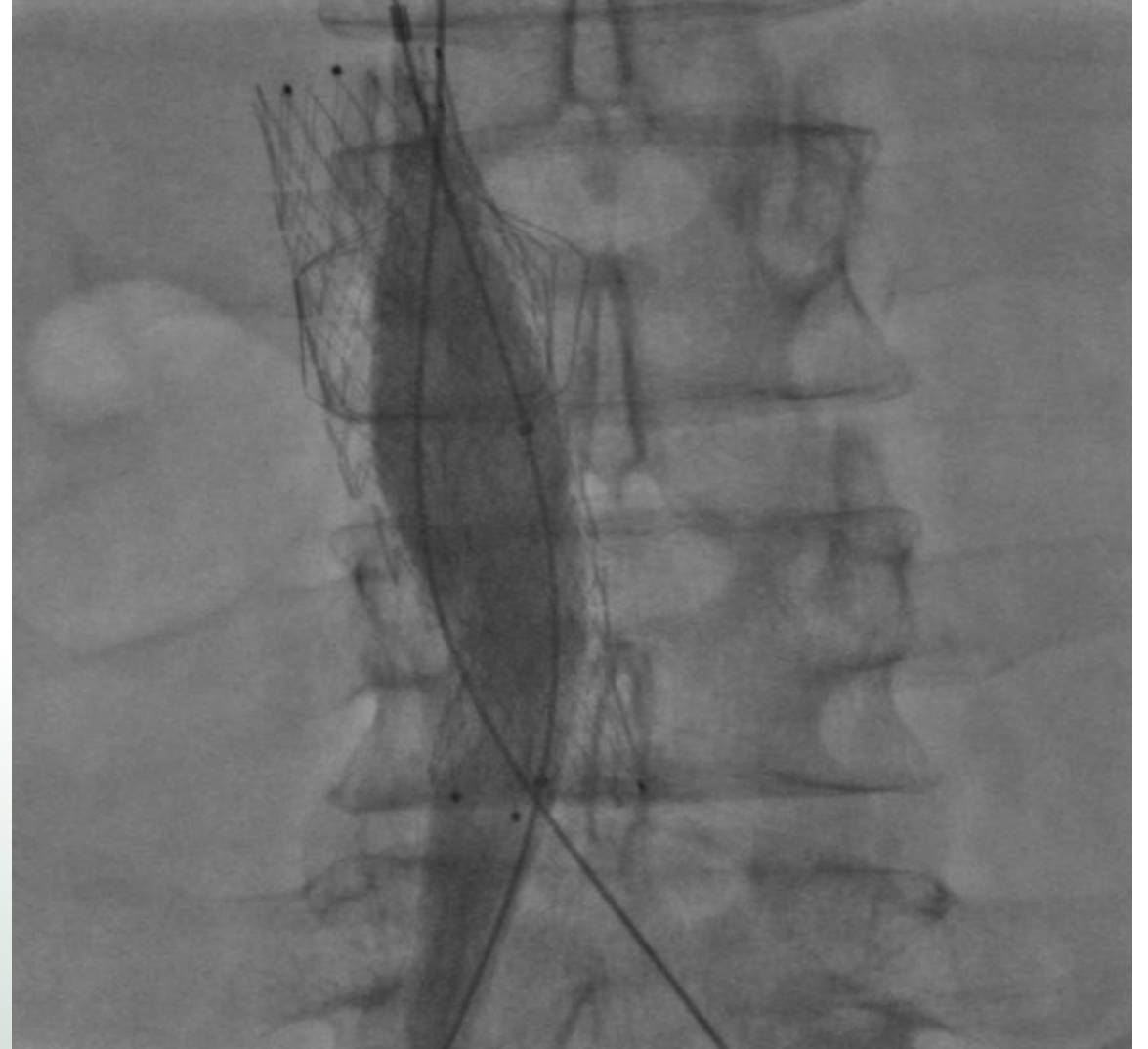
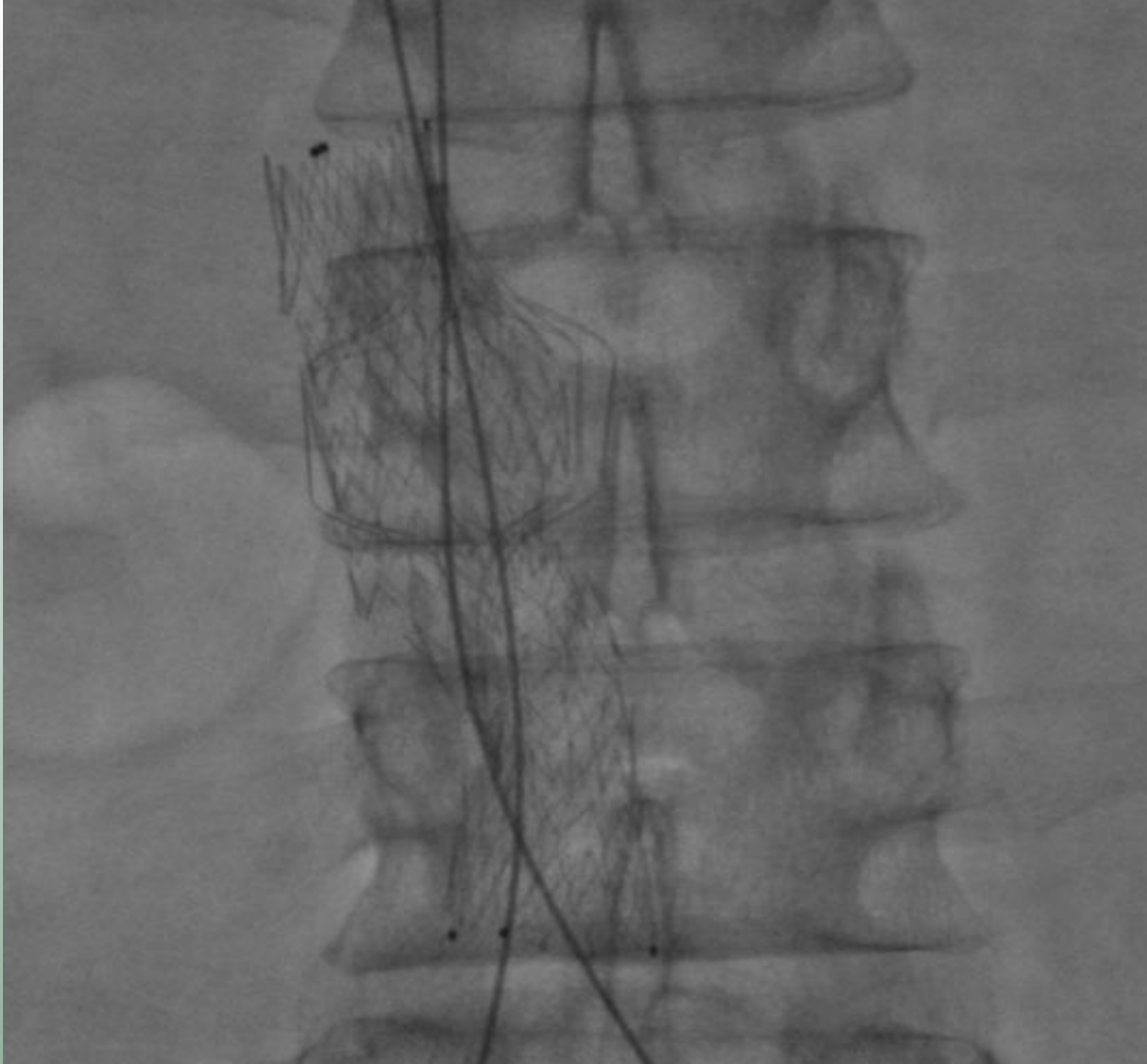


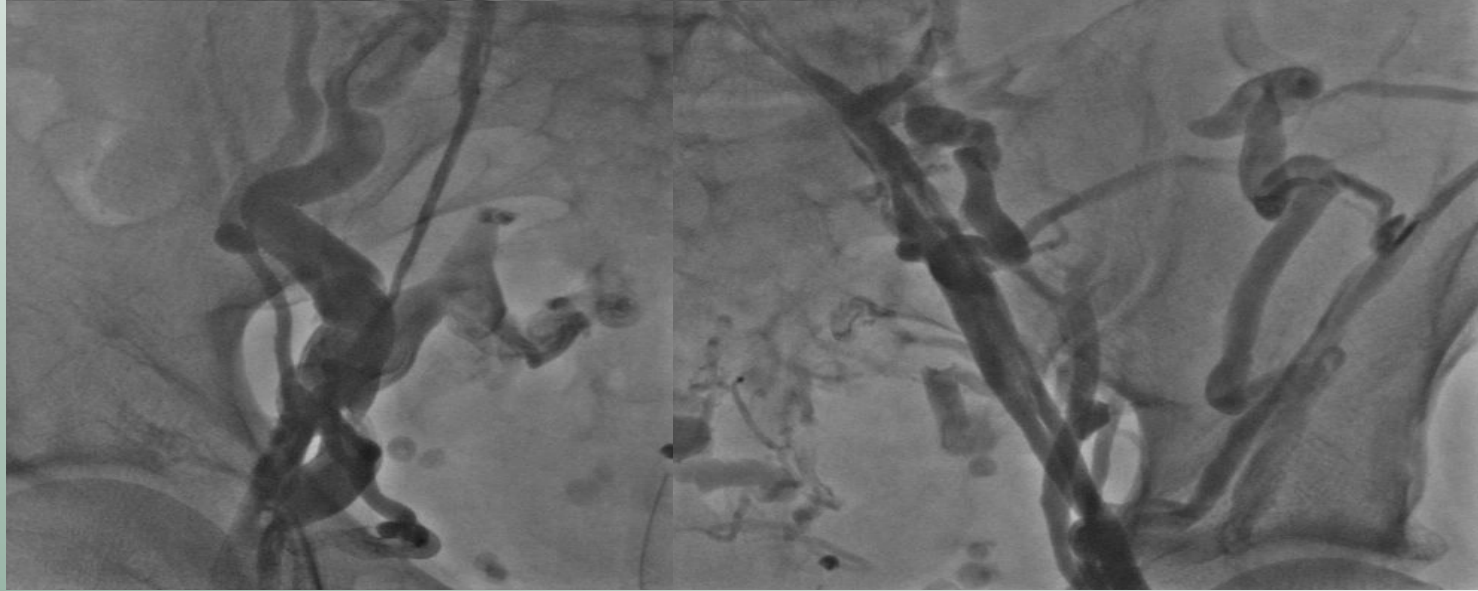
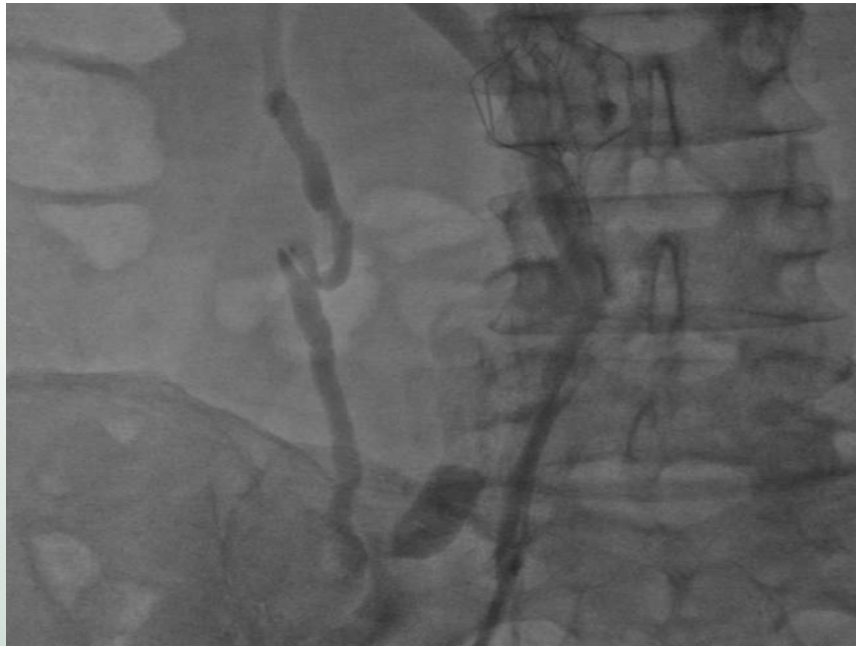
# high pressure balloons





adequate stent diameter





## Deep vein obstruction correction: *how to avoid bad results*

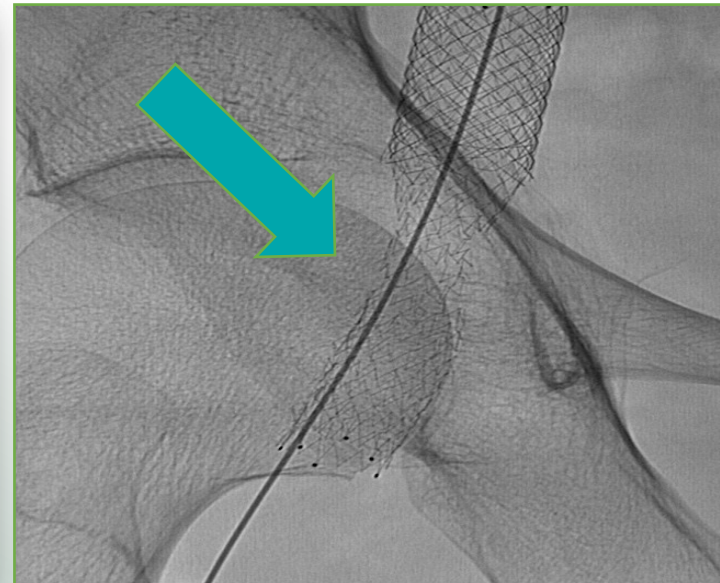
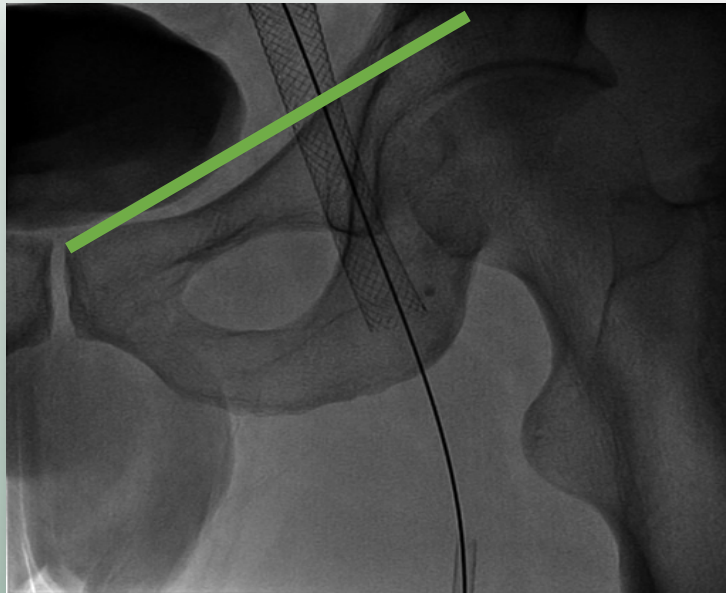
### 4) provide appropriate materials and setting

- catheterization sites selection
- perioperative pain control
- appropriate anticoagulant therapy

# Deep vein obstruction correction: *how to avoid bad results*

4) provide appropriate materials and setting

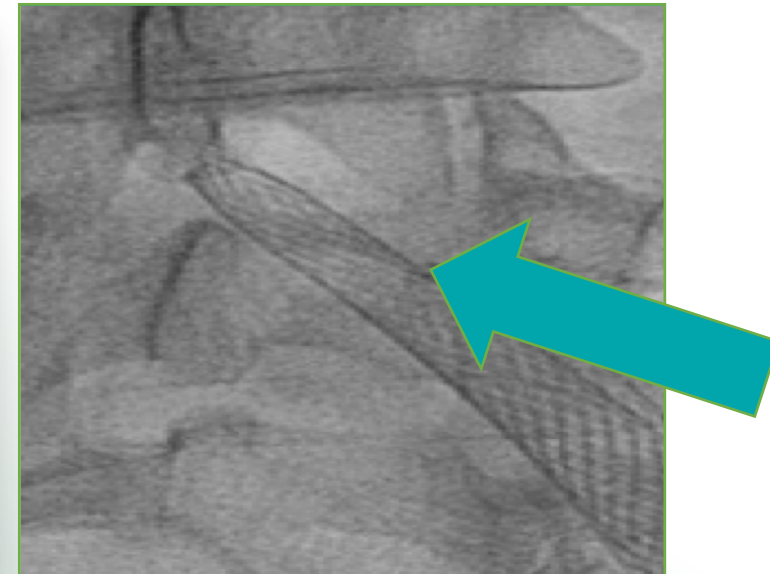
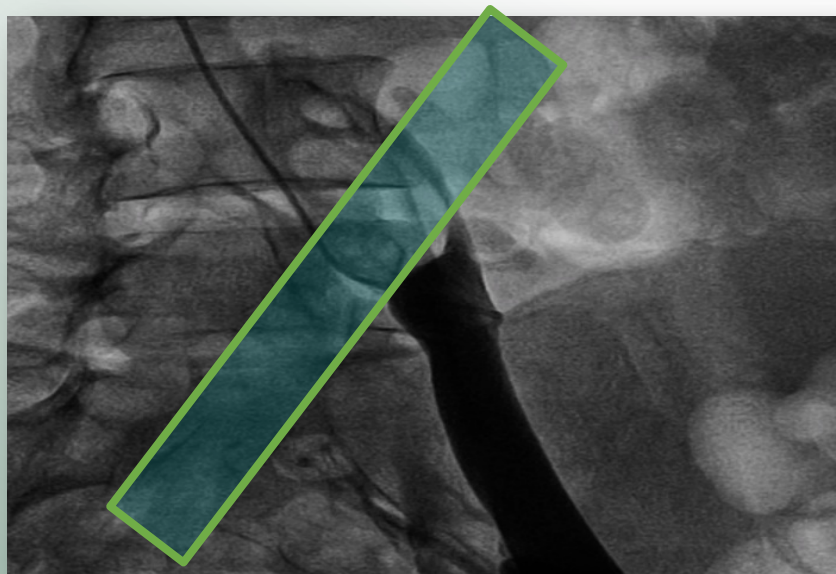
***dedicated stents***



# Deep vein obstruction correction: *how to avoid bad results*

4) provide appropriate materials and setting

***dedicated stents***

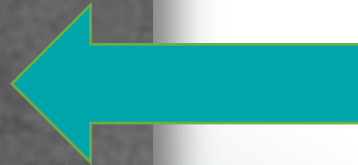
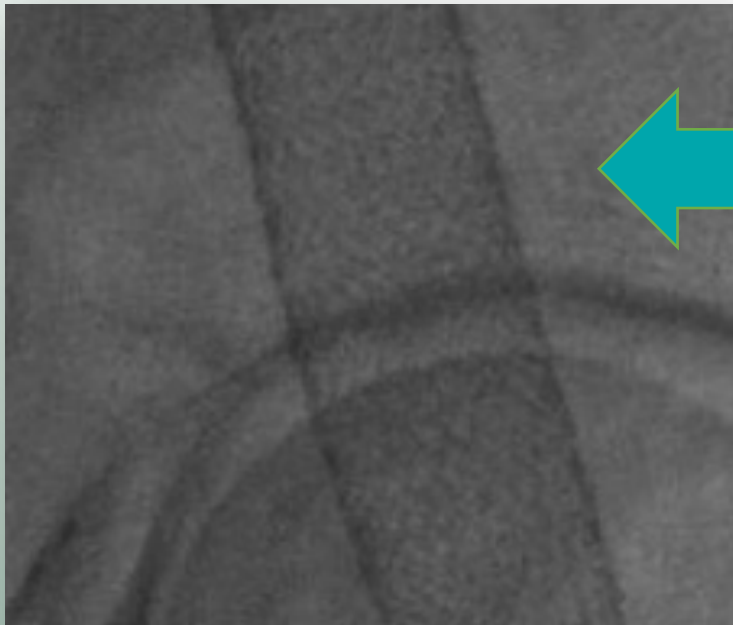




# Deep vein obstruction correction: *how to avoid bad results*

4) provide appropriate materials and setting

***dedicated stents***

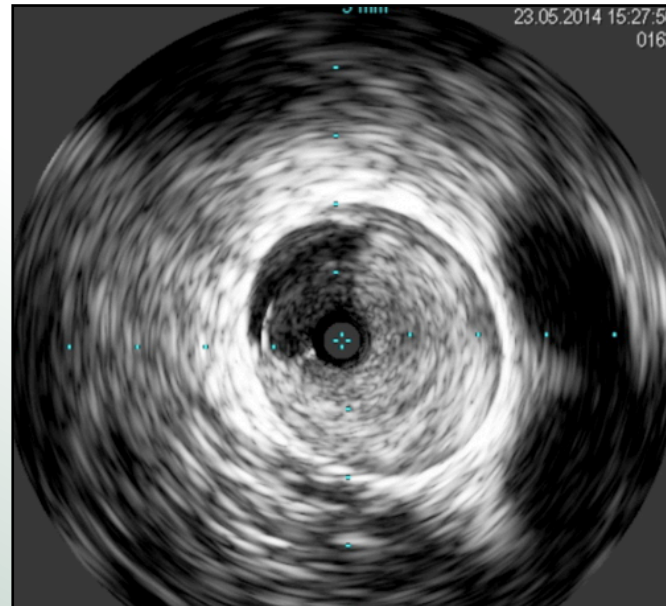


***stent design***

## Deep vein obstruction correction: *how to avoid bad results*

4) provide appropriate materials and setting

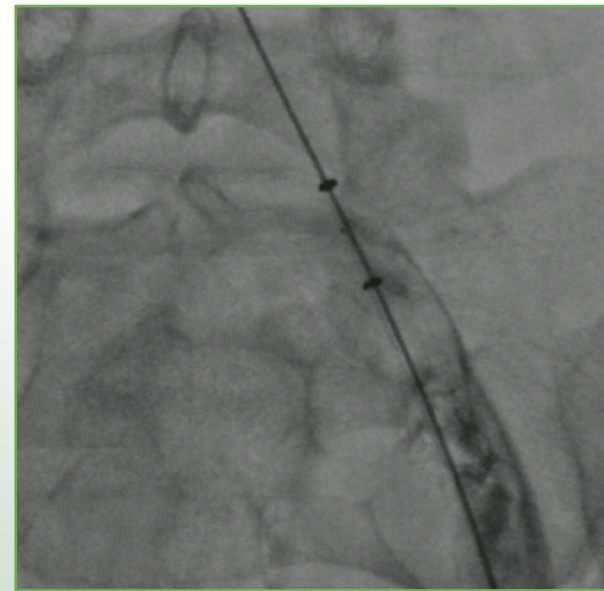
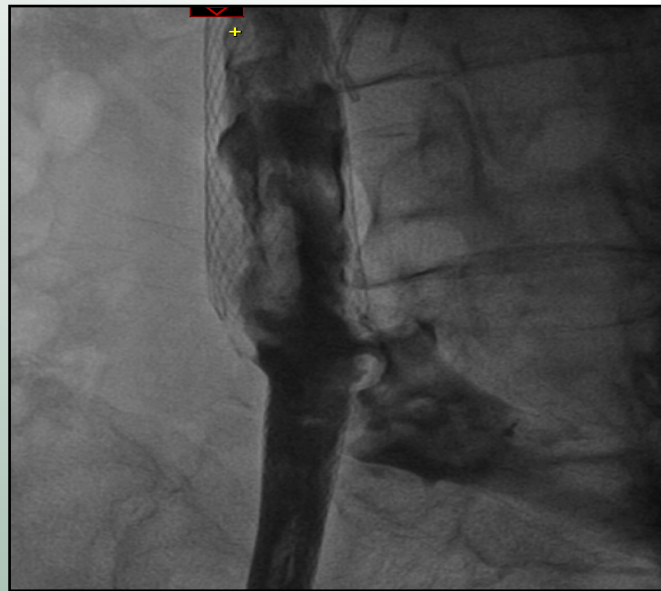
***skill on early thrombus removal***



## Deep vein obstruction correction: *how to avoid bad results*

4) provide appropriate materials and setting

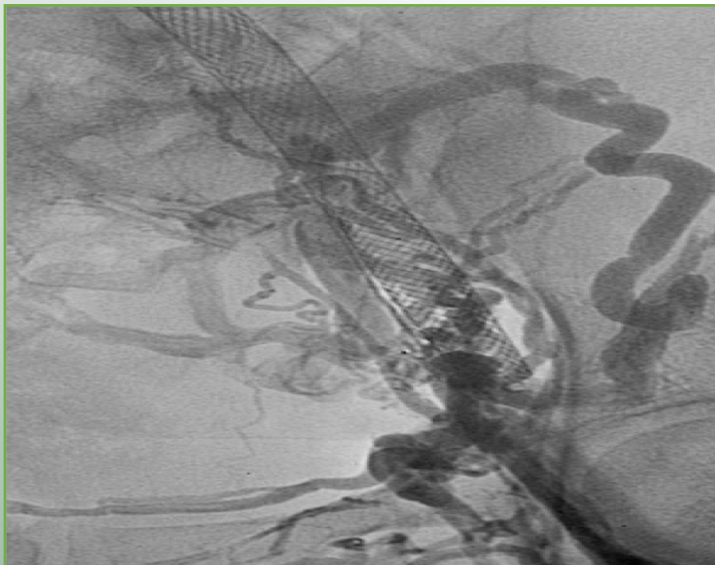
***skill on early thrombus removal***



Deep vein obstruction correction: *how to avoid bad results*

4) provide appropriate materials and setting

*skill on early thrombus removal*

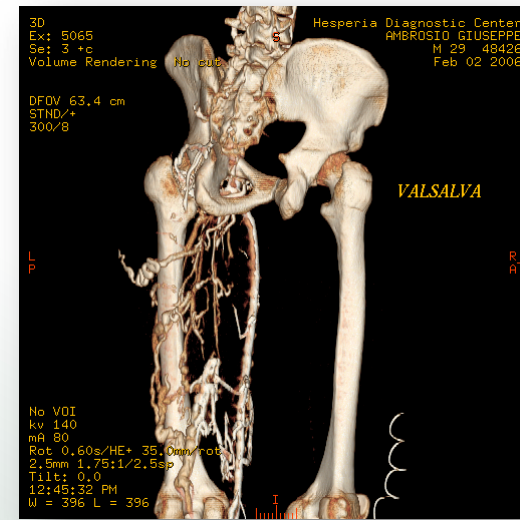
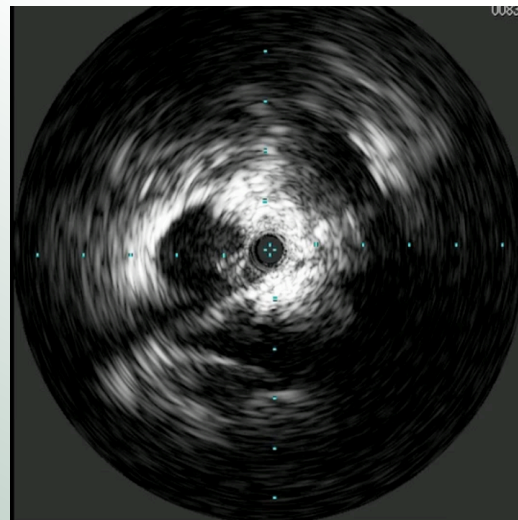
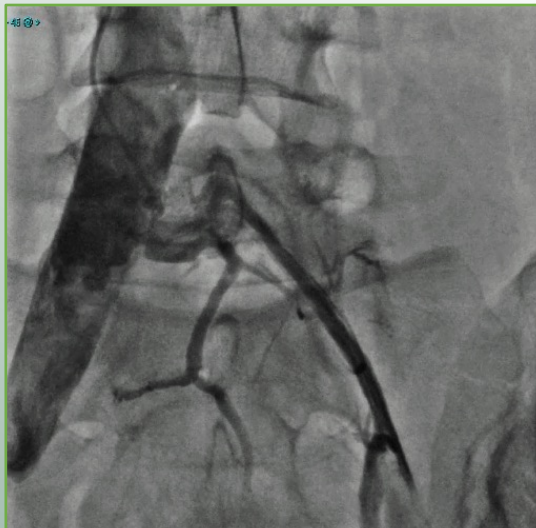


*stent occlusion is the  
REAL major  
complication in  
venoplasty*

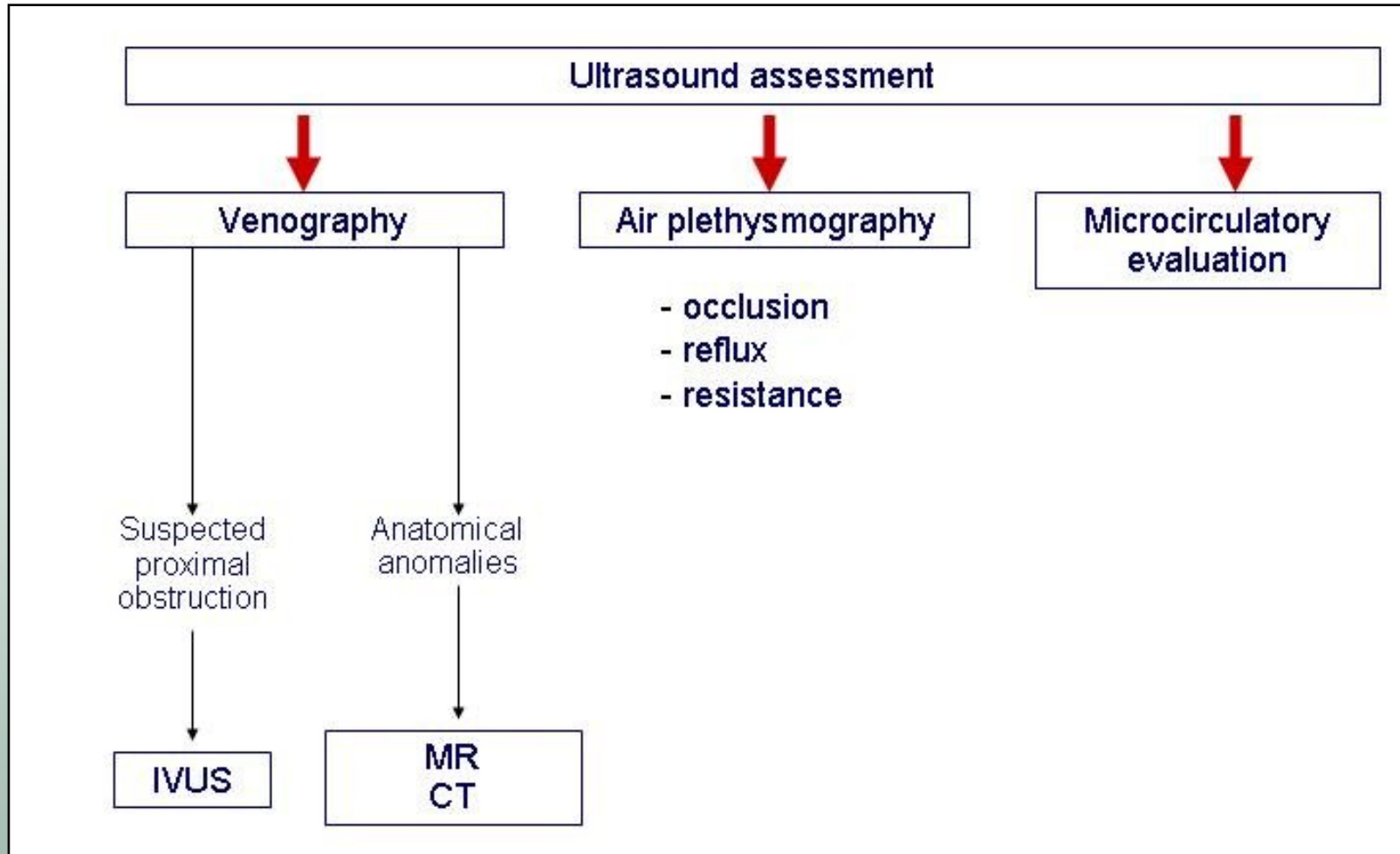
# Deep vein obstruction correction: *how to avoid bad results*

5) ensure a rigorous diagnostic protocol

only a good indications will ensure good results



# Deep vein obstruction correction: *how to avoid bad results*



**Thank you**