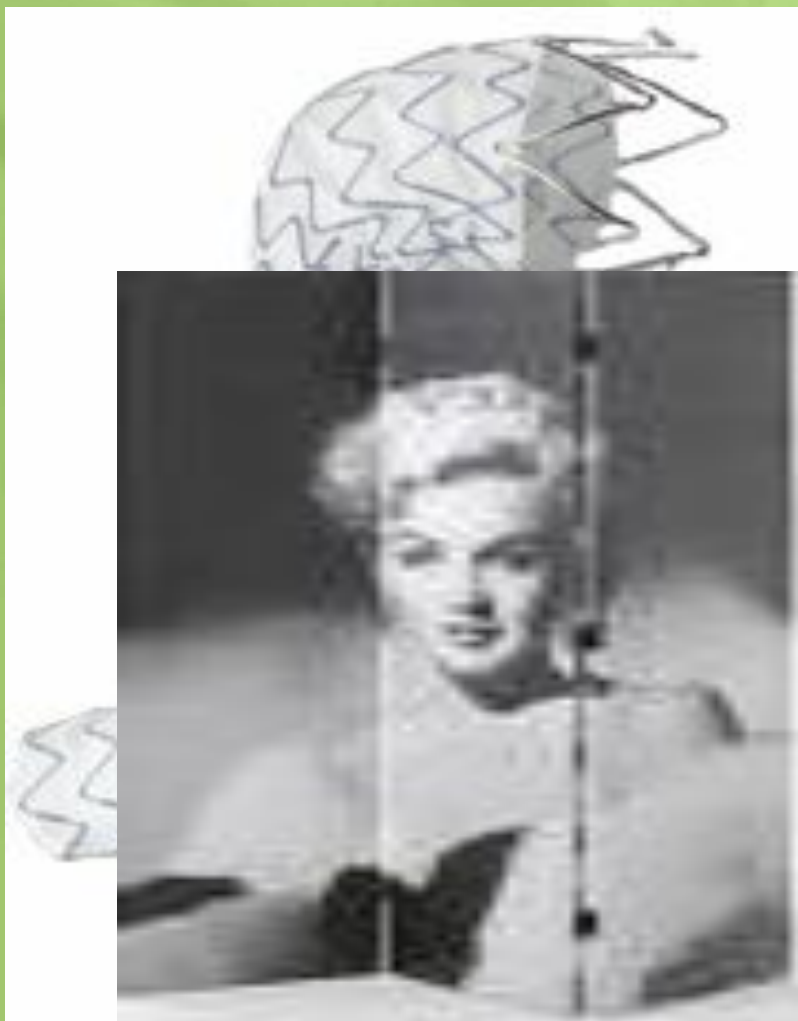
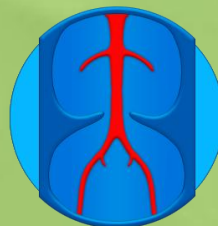




Vascular Clinic ZNA



# покрытый стент непокрытый



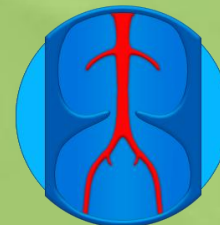
**P. Goverde MD,  
Vascular Clinic ZNA  
Antwerp, Belgium**



Vascular Clinic ZNA



# Covered stent UNCOVERED



**P. Goverde MD,  
Vascular Clinic ZNA  
Antwerp, Belgium**



- **Introduction Vascular Clinic ZNA**

- **7 vascular surgeons**

- **Dept Thoracic & Vascular Surgery of ZNA**

- **ZNA = English translation =**

- **Hospital Network Antwerp**

- **Fusion of 3 hospitals : Total beds : 2500**

- **6000 employees :**

- **3200 nurses,**

- **600 specialists**

- **Taking care of 6000 patients / day**

- **1 million medical & technical acts / year**

- **75000 hospital admissions / year**





## Covered Stent UNCOVERED

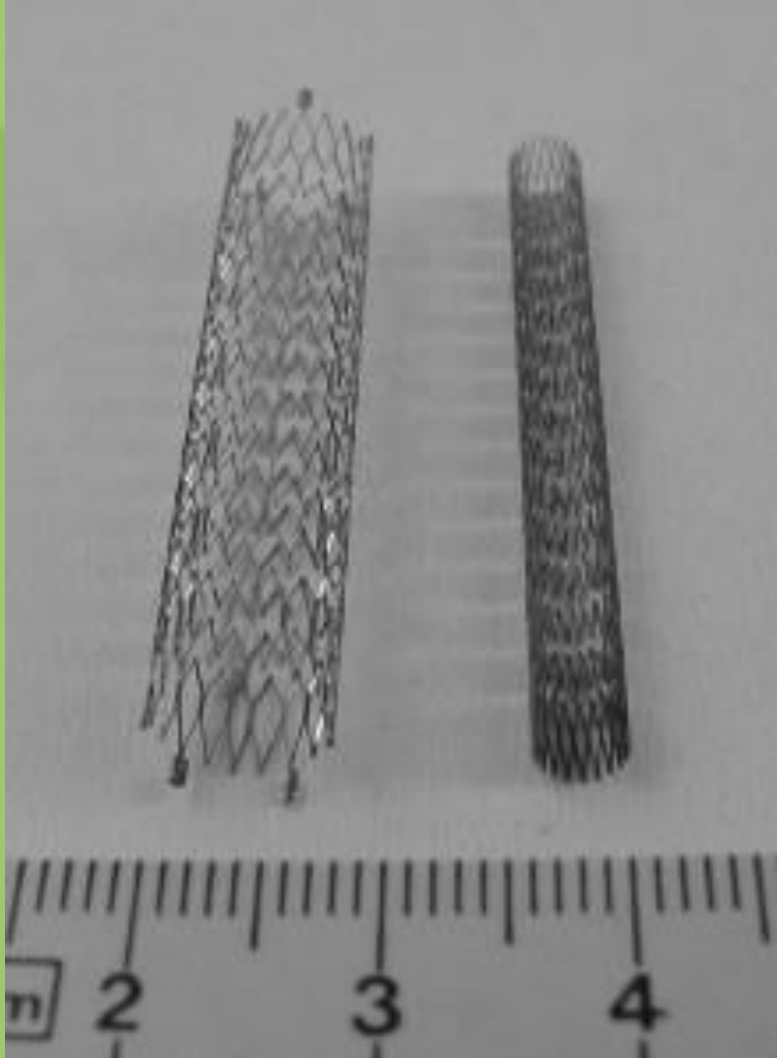


**Julio Palmaz  
1988**



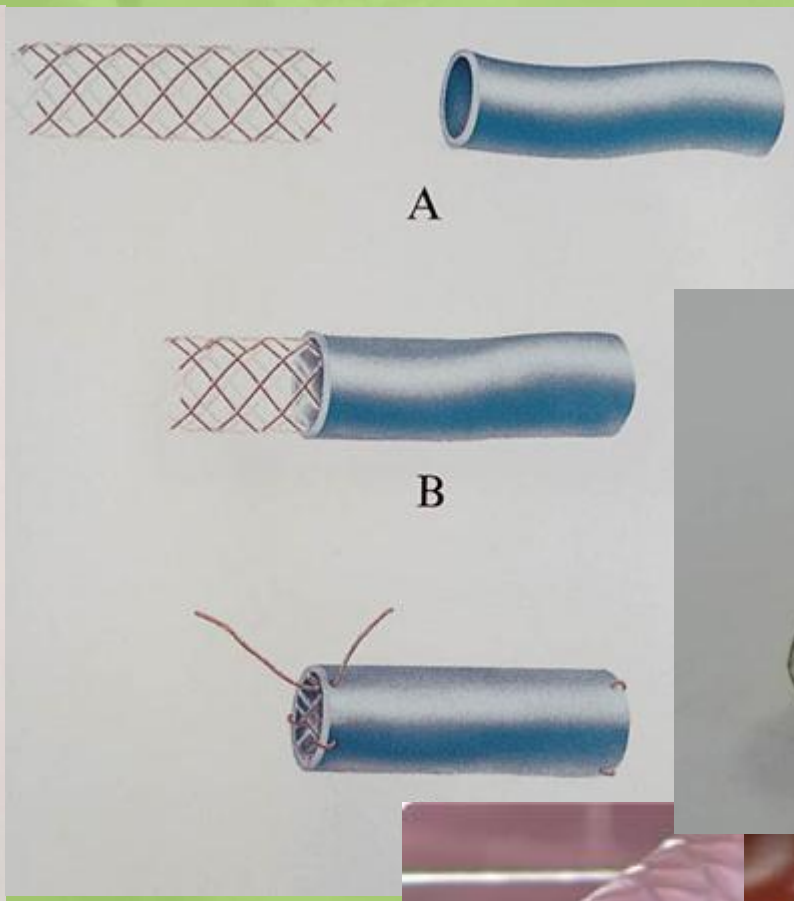
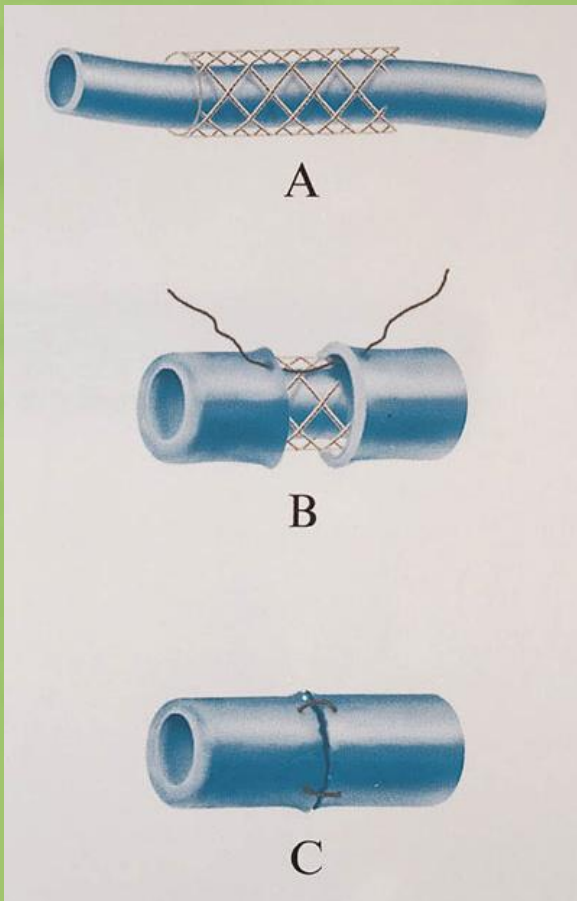


# Covered Stent UNCOVERED



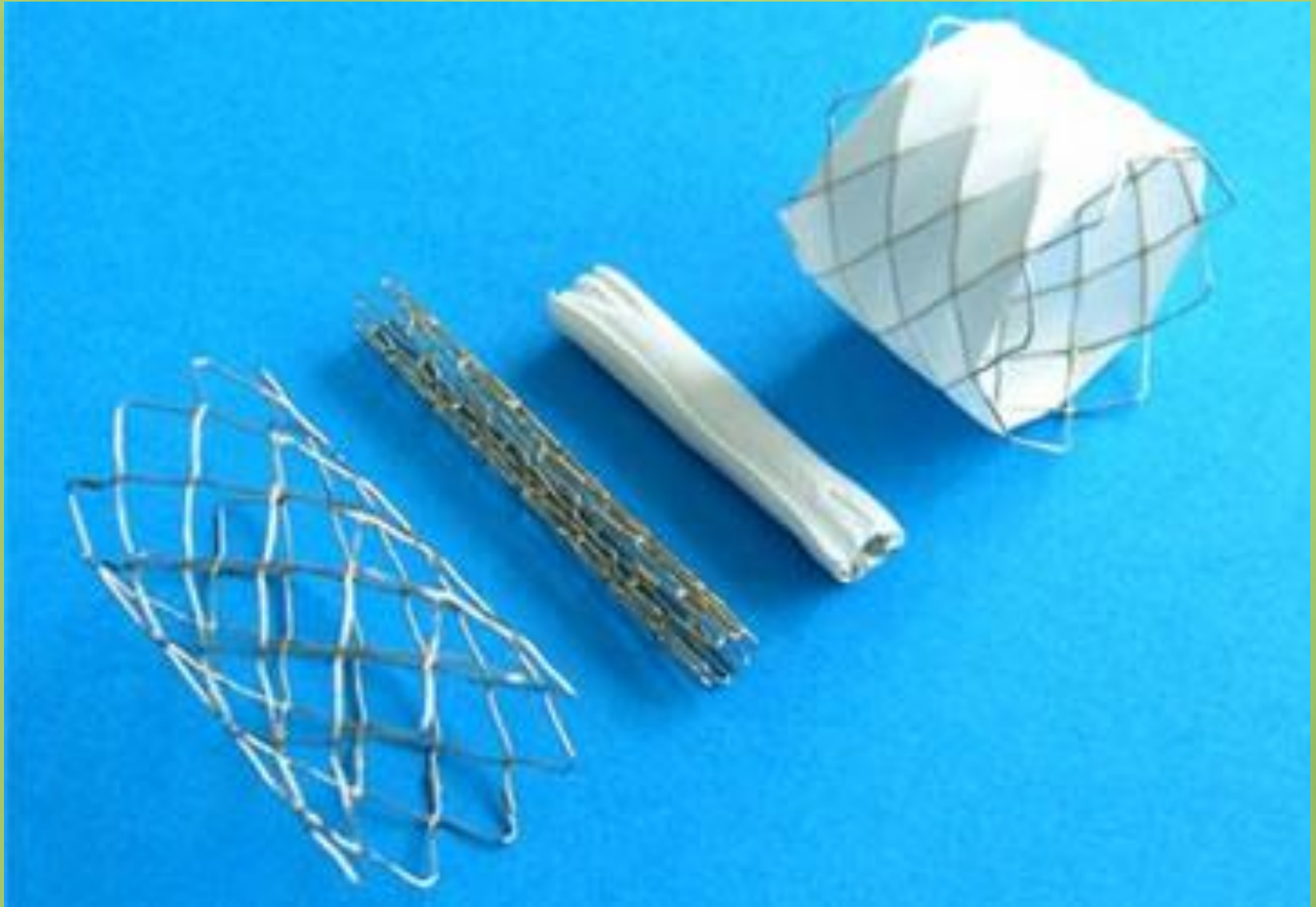


# Covered Stent UNCOVERED



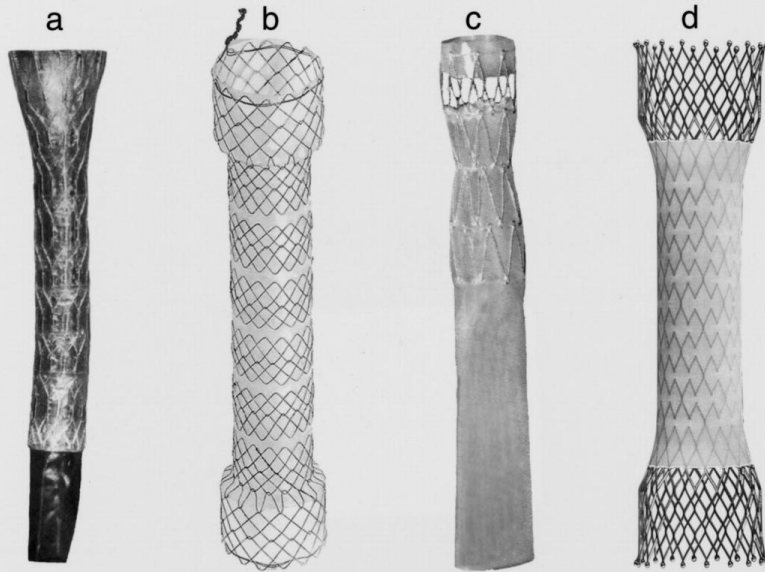


## Covered Stent UNCOVERED





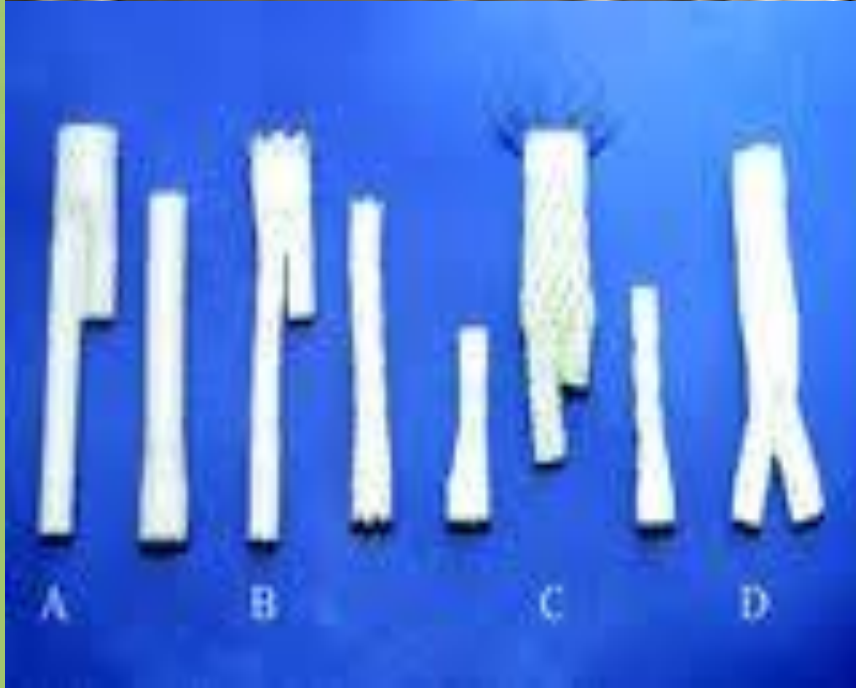
# Covered Stent UNCOVERED







# Covered Stent UNCOVERED



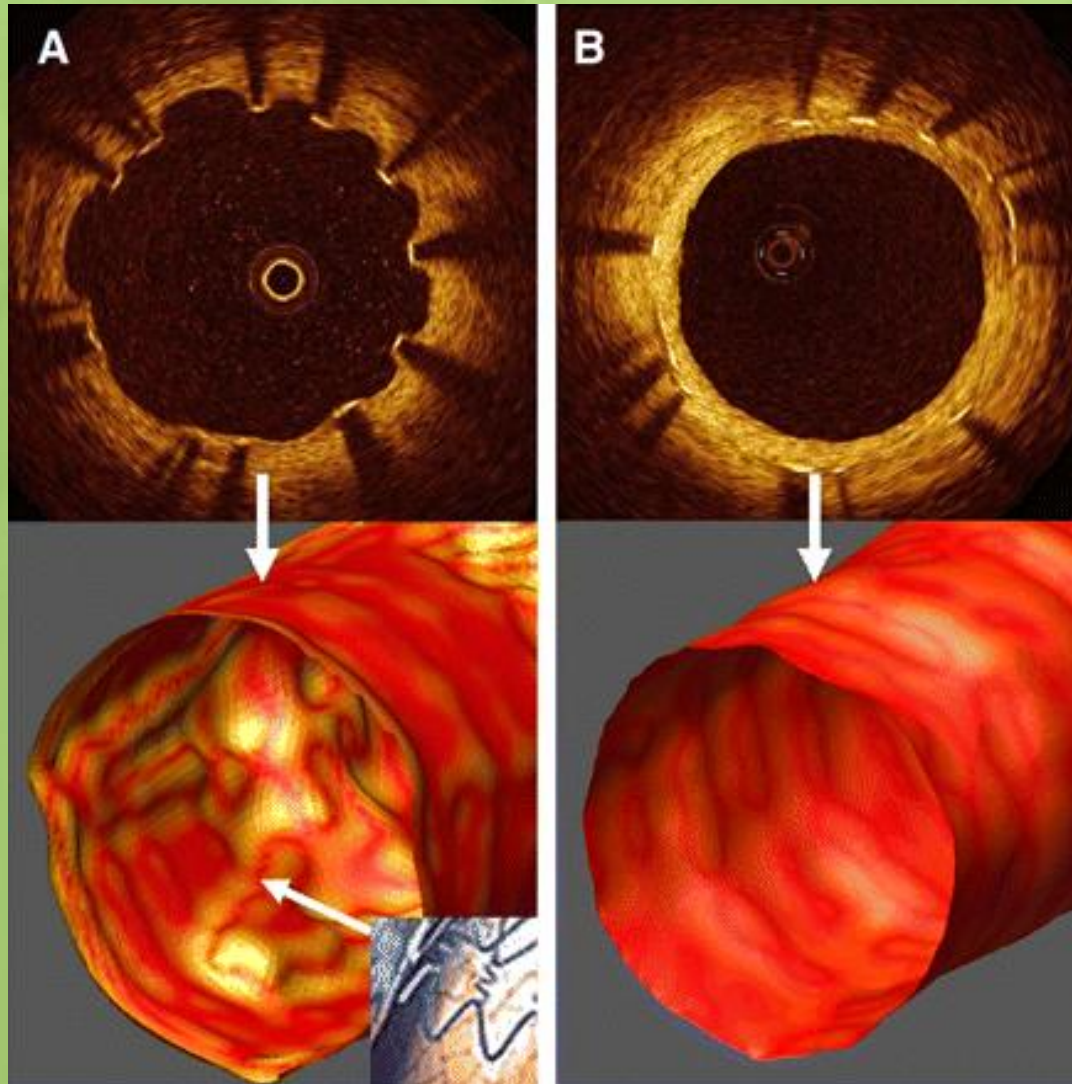


# Covered Stent UNCOVERED





# Covered Stent UNCOVERED





Vascular Clinic ZNA

**Covered Stent UNCOVERED**

**More  
acute indications  
for covered stent  
use**



- **Every one (will) encounter in the aorto-iliac region,**
- **Complications / problematic cases due to**
  - **Iatrogenic actions**
  - **Blunt/ penetrating trauma**
  - **Mixed group :**
    - **Isolated iliac artery aneurysm**
    - **Pseudoaneurysm**
    - **Acute aorta-iliac occlusion**
  - **( exclusion of AAA)**
- **leading to**
  - **Vessel closure**
  - **Organ injury**
  - **Ischaemic limbs**
  - **Haemorrhage**
  - **Shock, even death.**



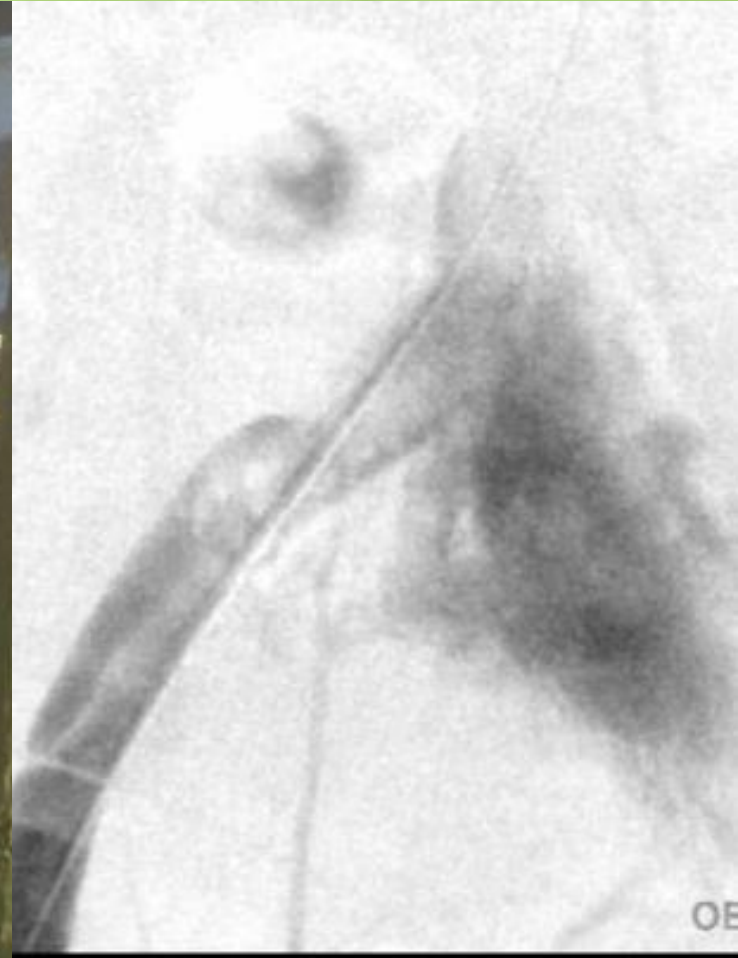
## Problems/ Complications

- **Perforation**





- **Rupture**

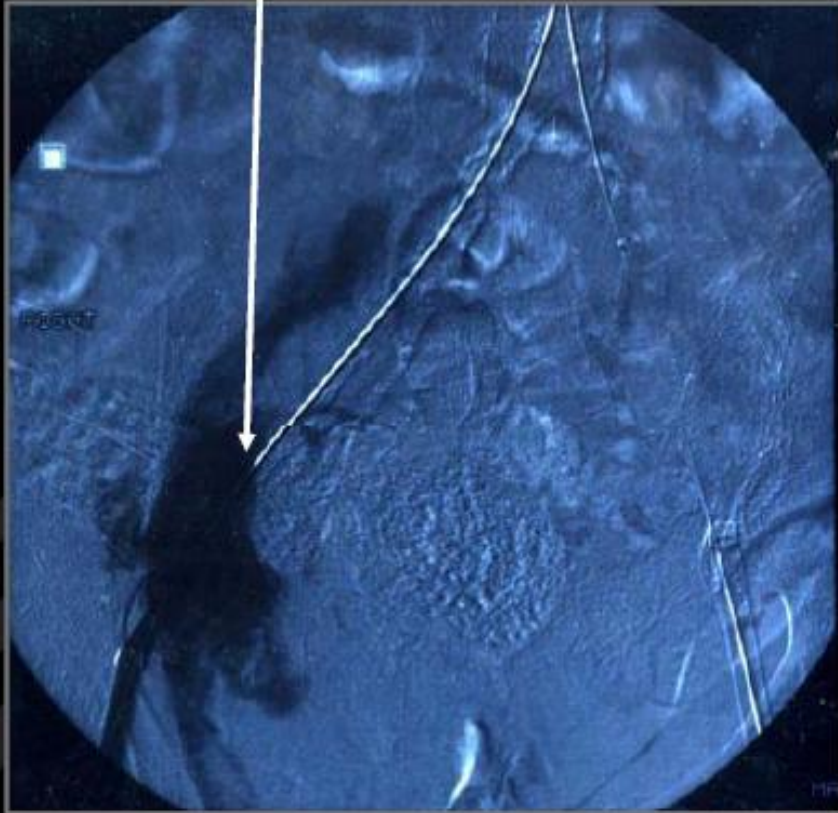


OB

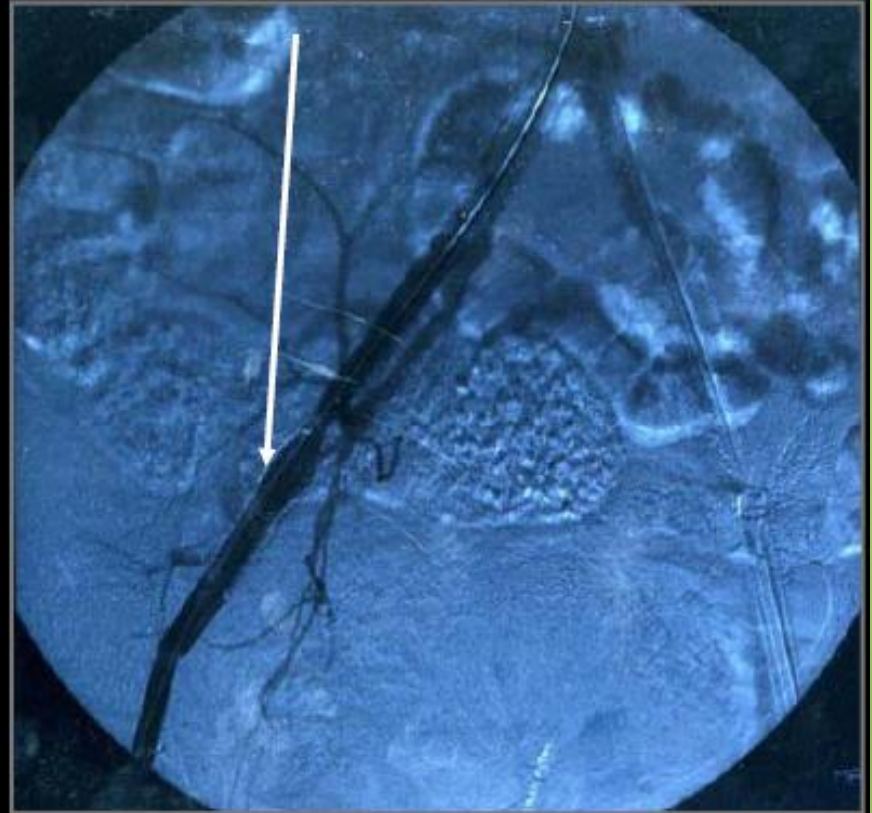


# Covered Stent UNCOVERED

**Ruptured Iliac Post PTA**



**Rupture Excluded Post Covered Stent**







# Flow limiting dissection





# Covered Stent UNCOVERED



**Occlusion**



- **How ?**

- **Trauma**

- **Iatrogenic**

- **Heavy calcifications**
- **Vessel wall weakness**
- **Subintimal route**

**OR**



Vascular Clinic ZNA

**Covered Stent UNCOVERED**

**You have to hurry ?**





# You have been distracted ?





**NEEDS ?**



- Adequate and fast management
  - Critical important
  - Life saving
- Material ? !!



- **Material :**
- **Wires / catheters** ✓
- **Balloons** ✓
- **Stents Sx / Bx** ✓
- **Covered stents** ✓ ?
- **sometimes : EVAR – TEVAR parts** ✓ ??

**What have we on the shelf?**



## Covered Stent UNCOVERED

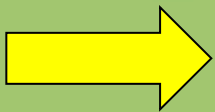
Like in a dream, but not always realistic







- **Material demands : covered stent / stent graft**
  - **Fast access**
  - **Easy to handle / to deploy**
  - **Low profile**
  - **Small stock needed**
  - **Fully covered**
  - **Radial force**
  - **Adaptiveness**
    - **Shape**
    - **Diameter**
      - **To demands of the lesion**



**Atrium Advanta V12 & V12 Large**



# **Use of covered stent in chronic arterial disease**

**Aneurysmatic disease**

**Stenotic / Occlusive disease**

- » **visceral arteries**
- » **aortoiliac region**

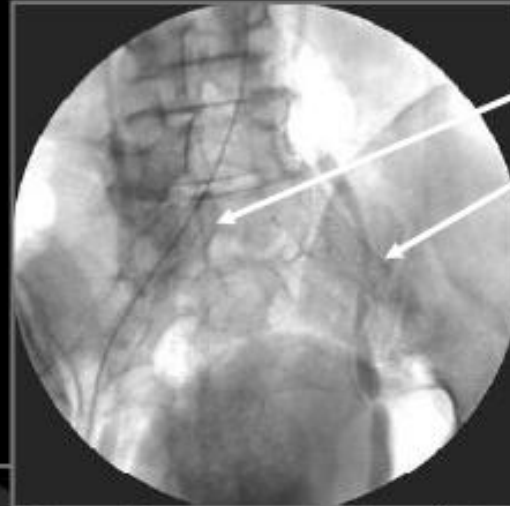


# Iliac aneurysm

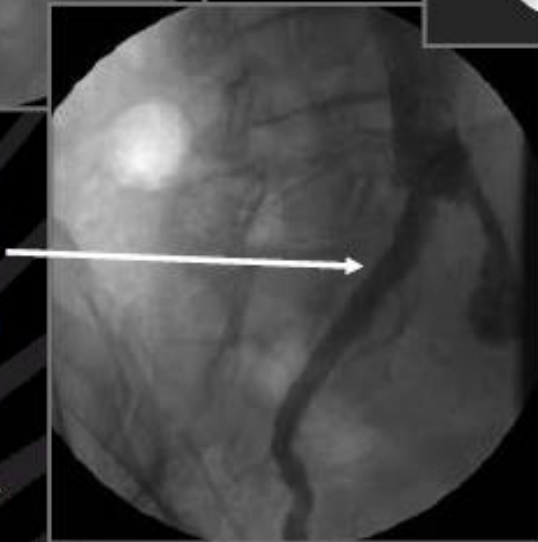
**Bilateral Aneurysms**



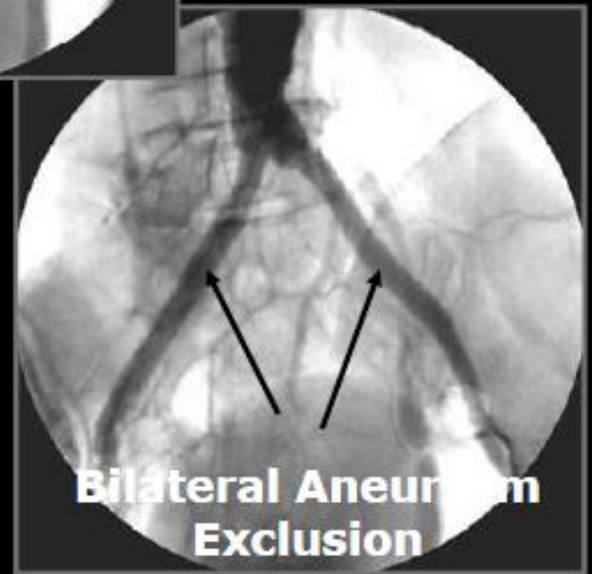
**Bilateral Covered Stents**



**Exclusion of Right Aneurysm**



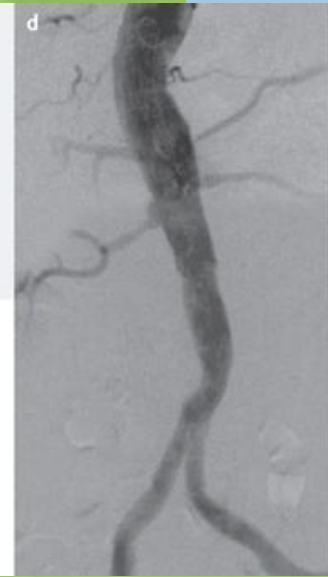
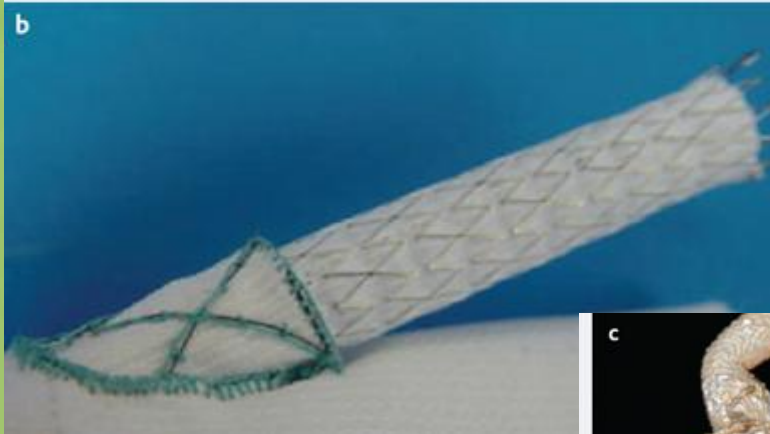
**Bilateral Aneurysm Exclusion**



Advanta™ V12 is CE approved for restoring the patency of iliac & renal arteries. Renal approval is for 5-7mm sizes.



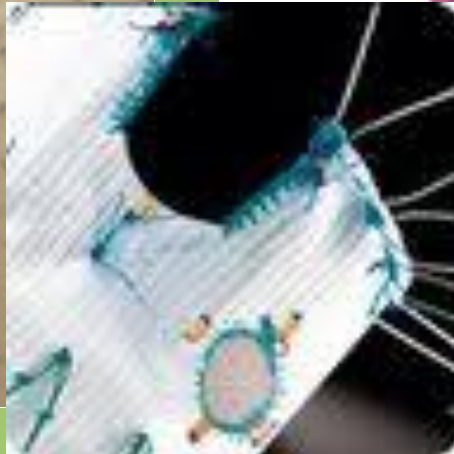
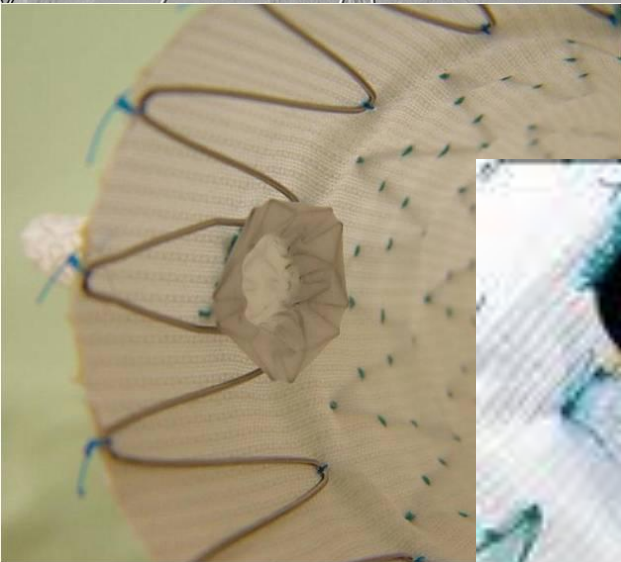
# Iliac aneurysm : IBD





# Covered Stent UNCOVERED

**With fenestrated endoprosthesis**





# Covered Stent UNCOVERED





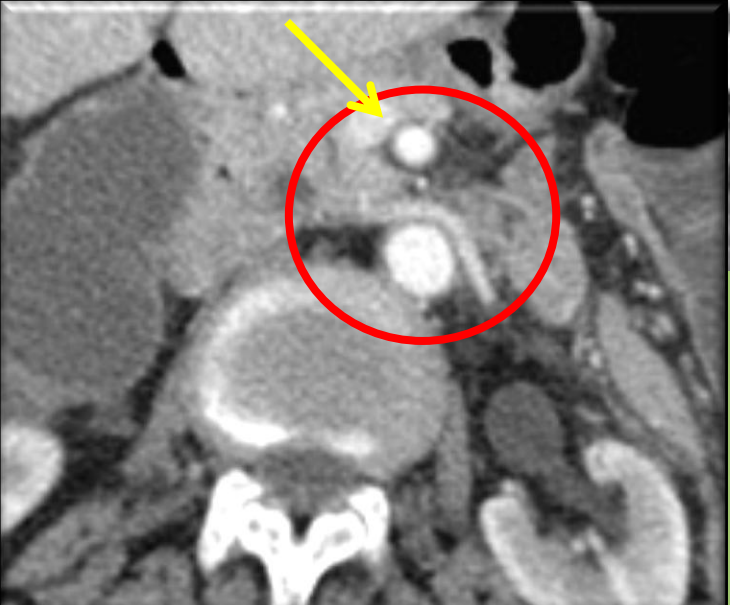
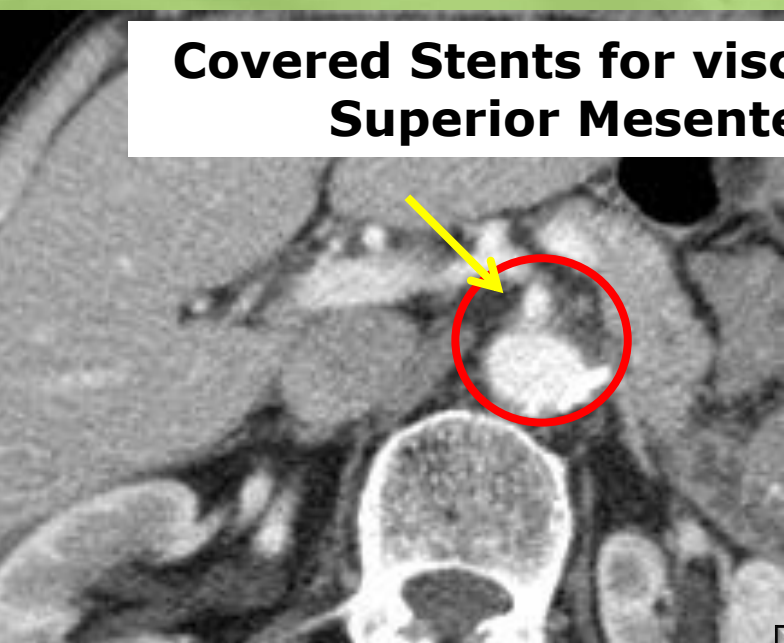
# Covered Stent UNCOVERED

A. Lobatto





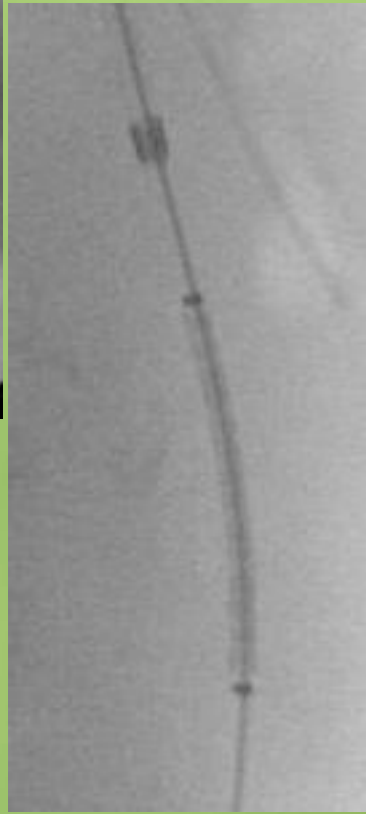
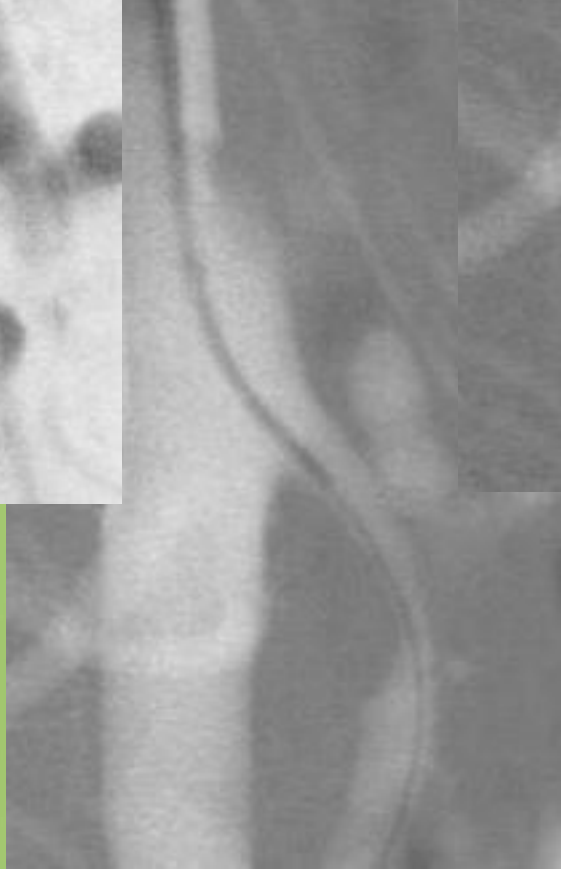
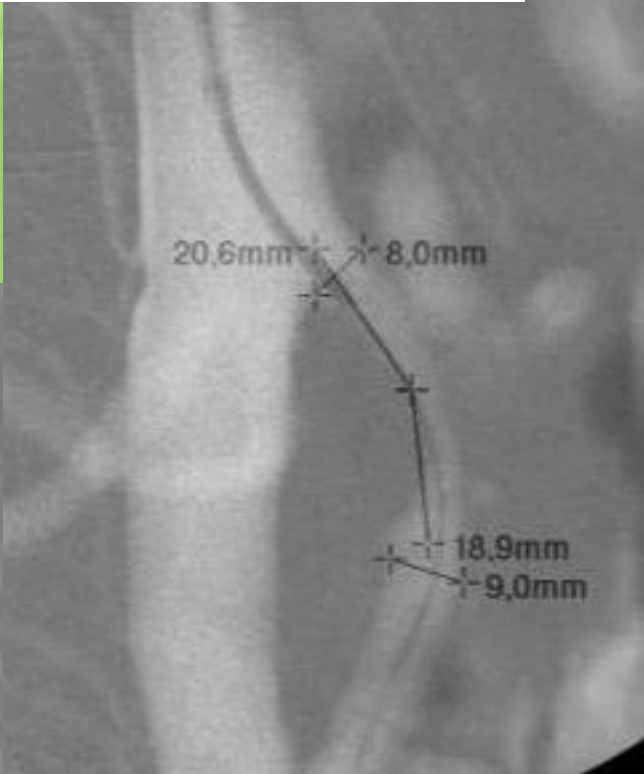
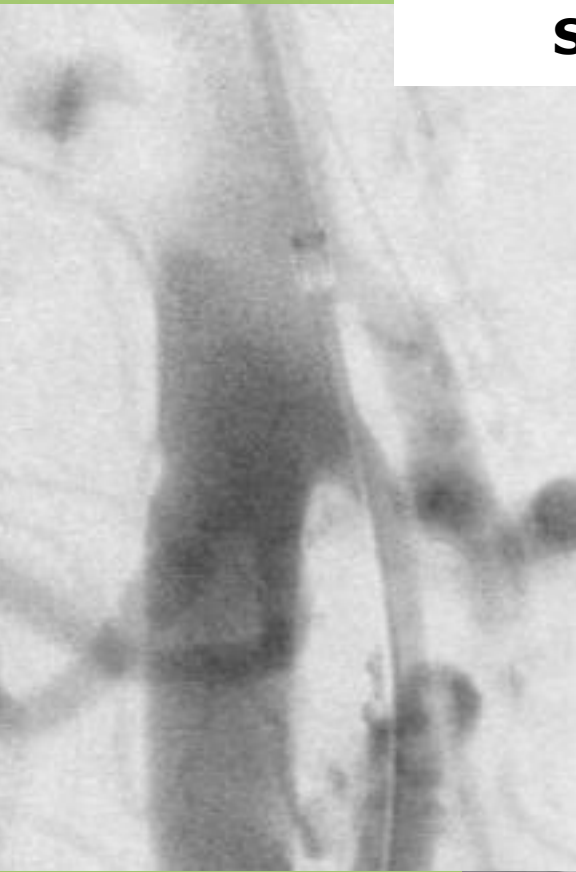
**Covered Stents for visceral arteries  
Superior Mesenteric artery**







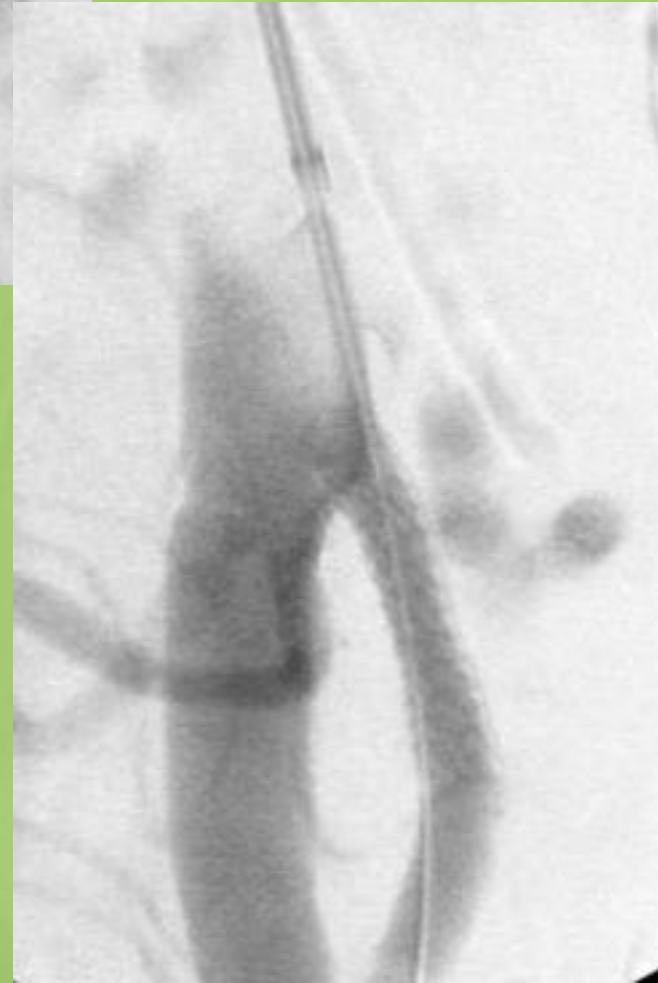
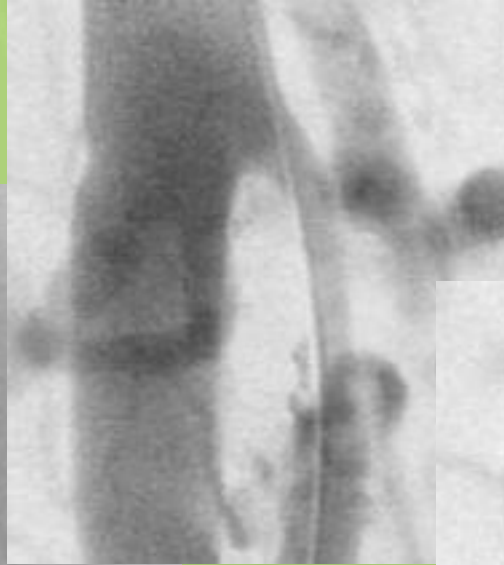
**Superior Mesenteric artery**





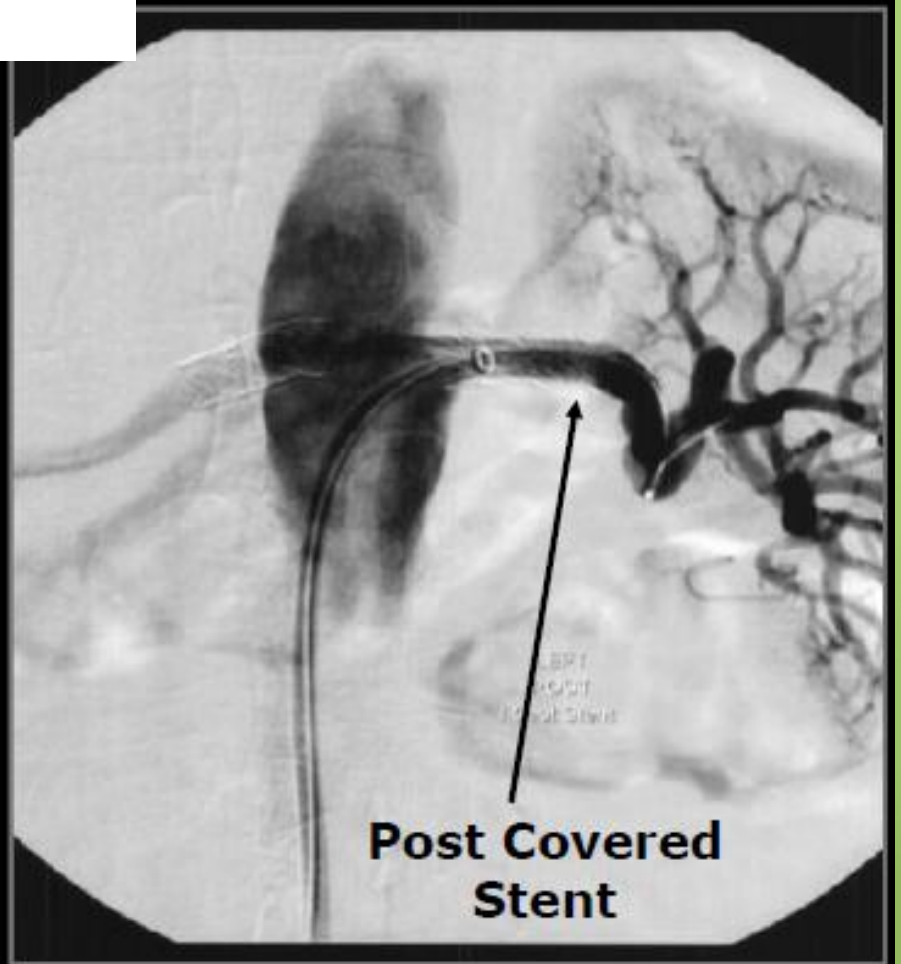
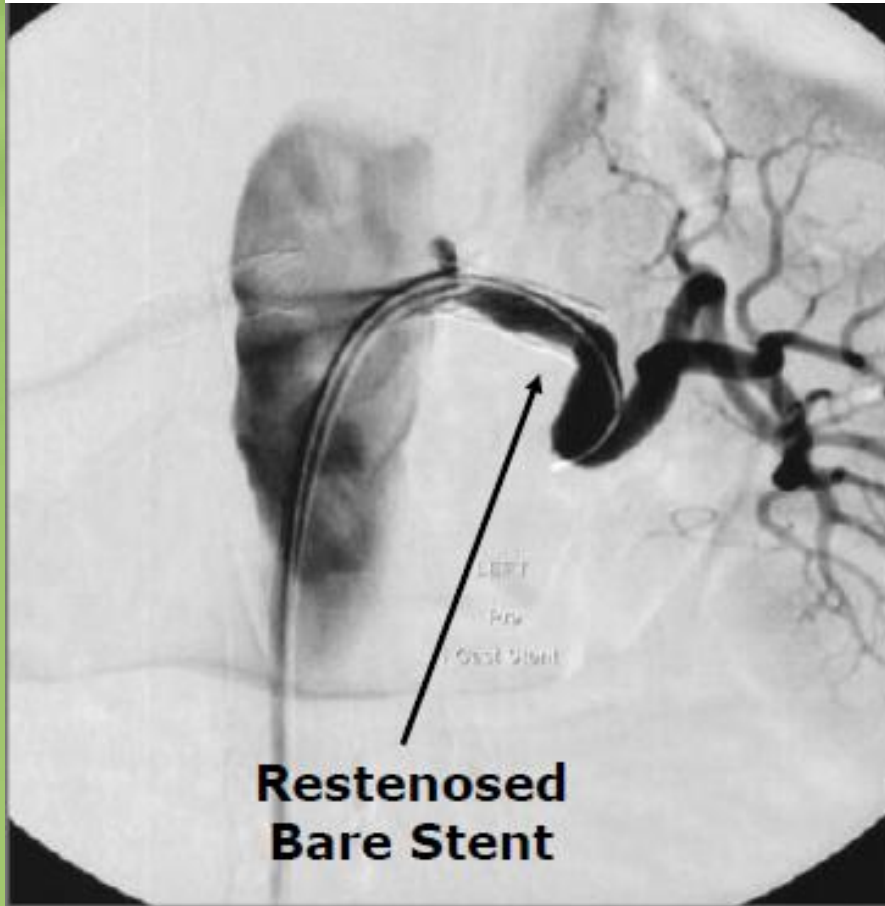
## Covered Stent UNCOVERED

**Superior  
Mesenteric  
artery**



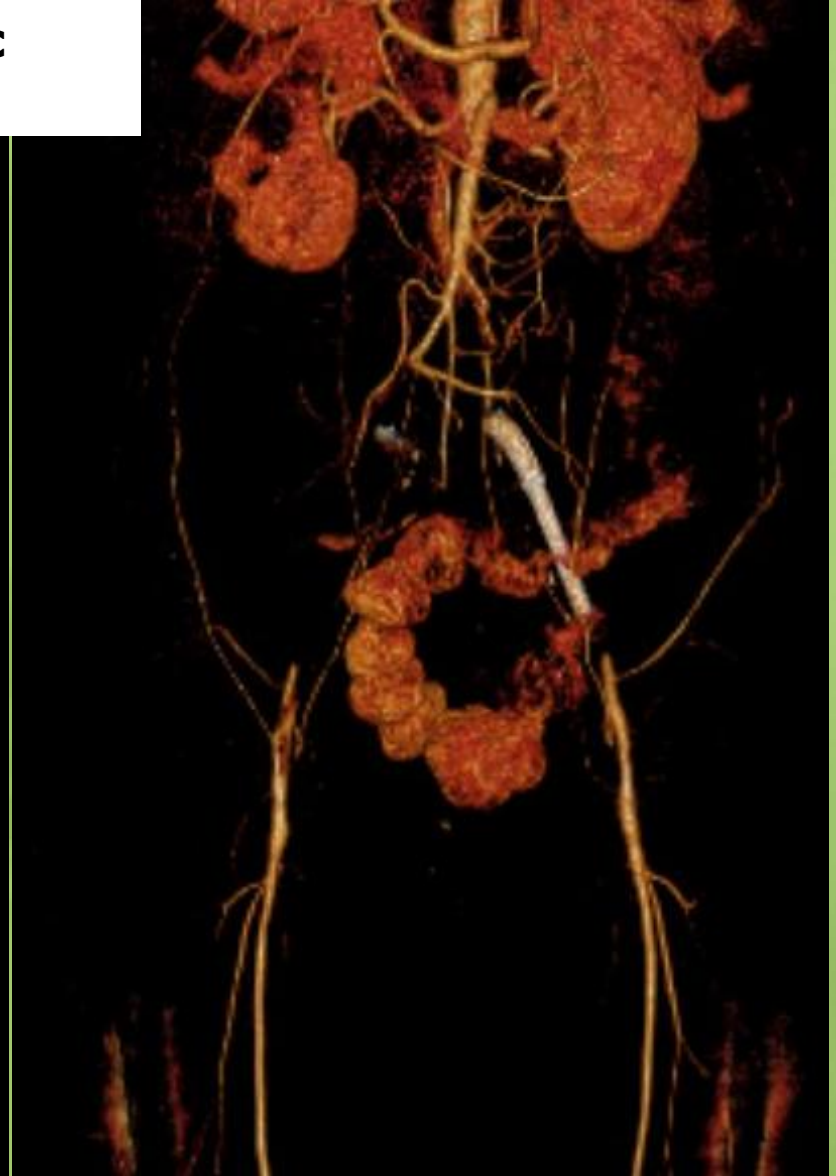


**Covered Stents for visceral arteries  
Renal in stent stenosis**





**Covered Stents for aortoiliac  
revascularisation**

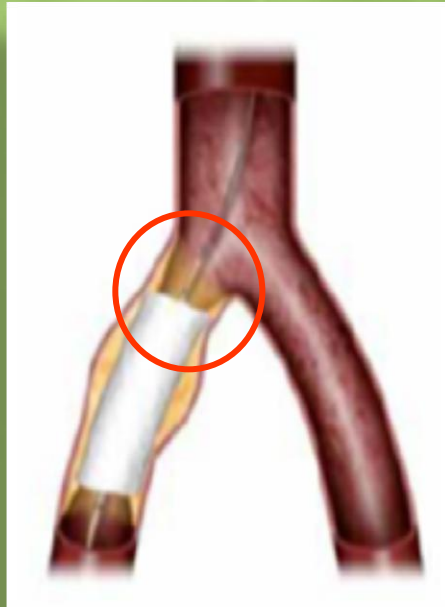
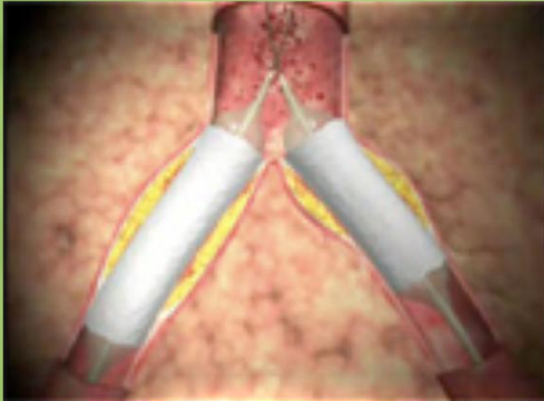




- **iliac & distal aortic region : first target zones of PTA**
- **common treatment with fair results**
- **expansion to more extensive aortoiliac occlusive disease:**
  - **introduction of new stent technologies**
  - **development of dedicated devices**
  - **the increasing experience of the interventionalist.**



## Why using ePTFE covered balloon expandable stents?



**Complete coverage of the lesion is needed**

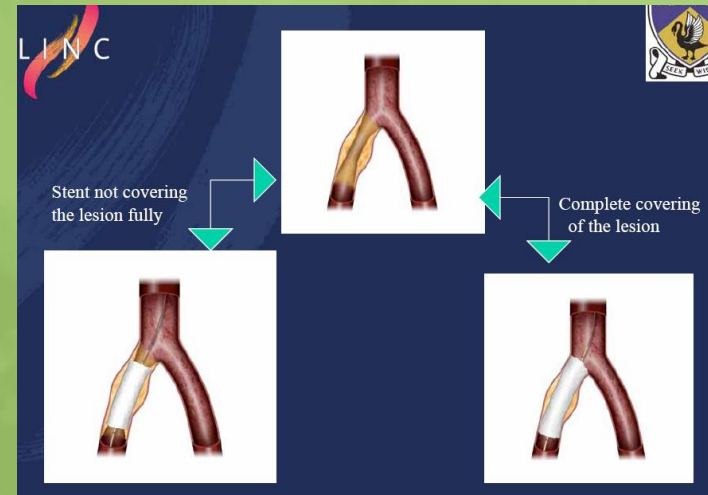




## ***Covered stents in the aorto-iliac occlusive disease***

- **Cobest trial:**

- Covered stents (n=82) vs. bare metal stents (n=86)
- TASC B: Similar patency
- TASC C and D:
  - **Less binary re-stenosis**
  - **Less occlusions**



- **Excellent results in isolated occlusive aortic lesions**

*P. Mwipatayi, et al. J Vasc Surg, 2011;54:1561-1570*

*Bruijnen RCG et al. J Vasc Surg 2012;55:674-8*



## Covered Stent UNCOVERED

**How to treat ?**



**How to prevent ?**





**Covered Stent UNCOVERED**



***C*overed  
*E*ndovascular  
*R*econstruction  
*A*ortic  
*B*ifurcation**

***CERAB cuff & kiss***

***A new technique  
to reconstruct  
the aortic bifurcation with  
3 Atrium Advanta V12  
covered stents  
for occlusive disease***



## **Why Atrium's Advanta V12 covered stent**

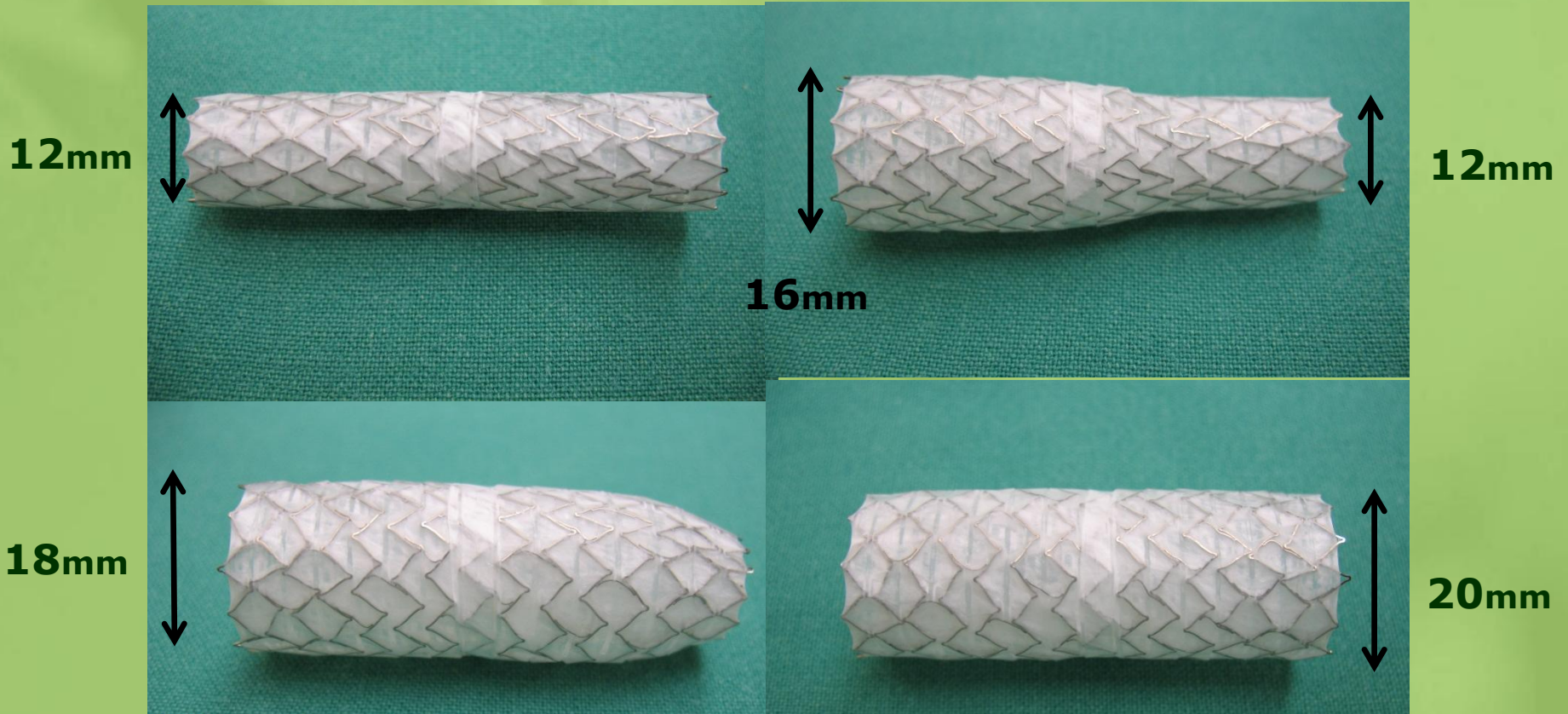
- **due to specific characteristics:**
- **low profile**
- **double ePTFE layer**
- **easy and accurate deployment**
- **radial force**
- **Dog-bone type inflation of balloon**
- **diameter adaptiveness**  
(postdilation to a larger diameter is possible without damaging the stent structure and ePTFE )



## Covered Stent UNCOVERED

**adaptiveness**

**1 stent = 4 different shapes  
Atrium Advanta V12 L 12x 61 mm**





## ***CERAB case***

- **56-year old male**
- **Rutherford 3**
- **Smoker, hypertension**
- **ABI: 0.64 / 0.64**
- **Duplex ultrasound:**
  - **Bilateral >70% stenosis in CIA**
- **CT angiography:**
  - **Highly calcified lesion in distal aorta and both CIA**

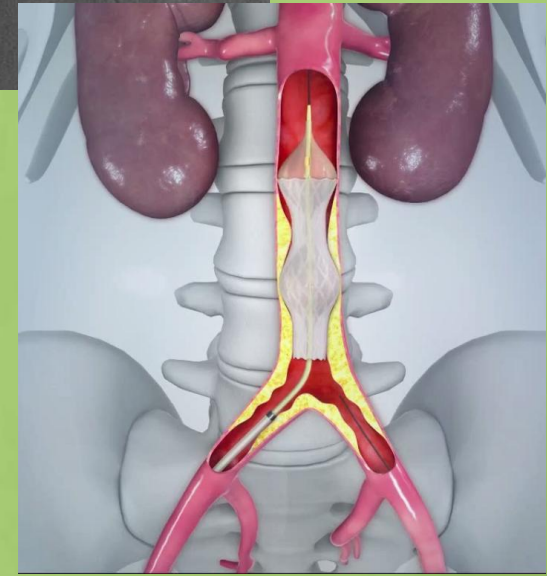
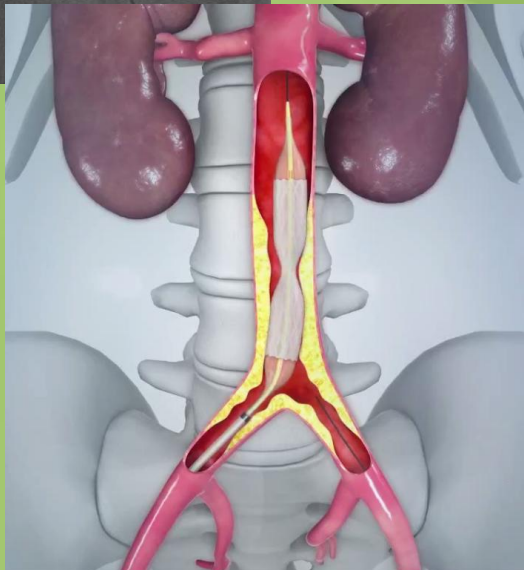
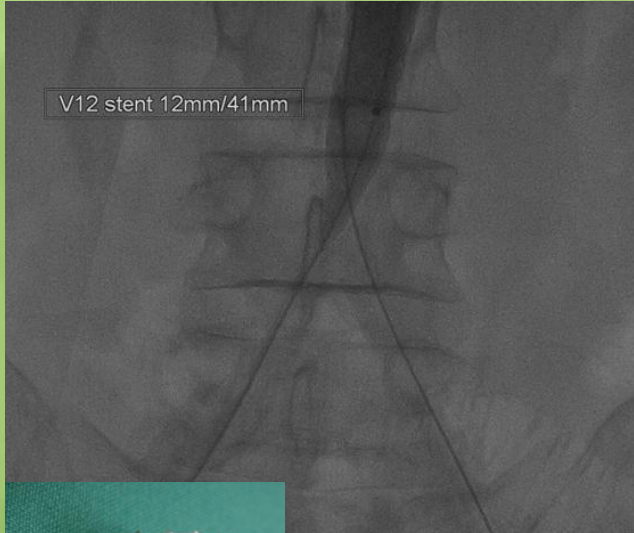




Vascular Clinic ZNA

# Covered Stent UNCOVERED

## CERAB case

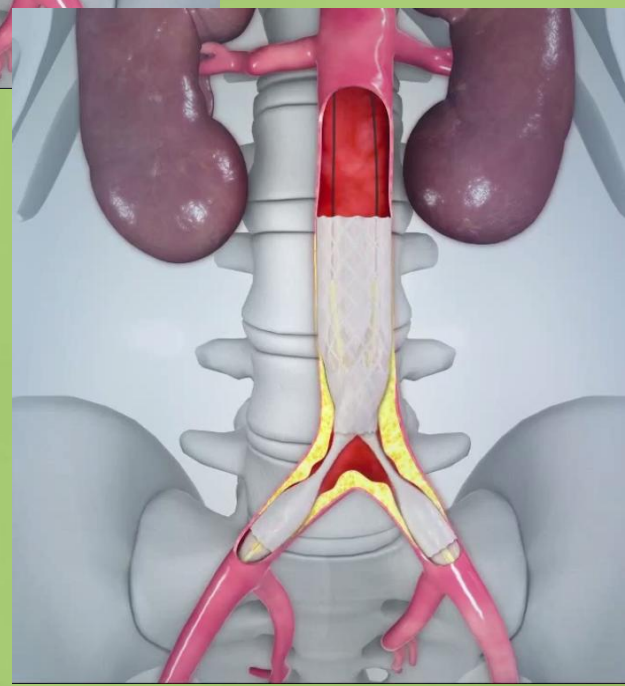
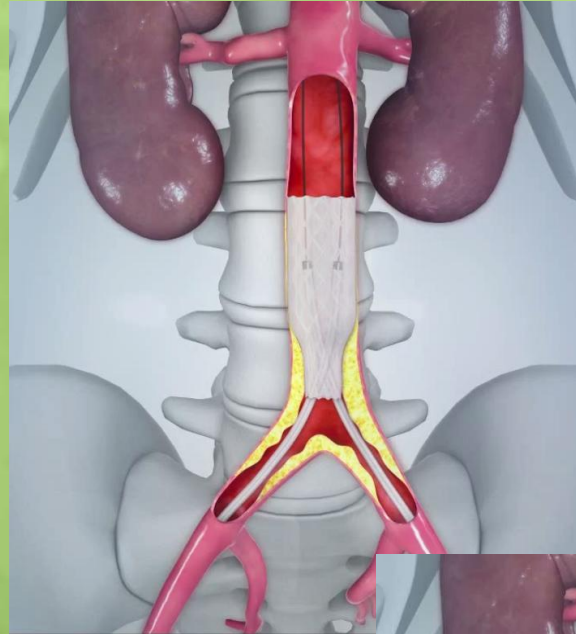




# Covered Stent UNCOVERED

## CERAB case

2x V12 8mm, 59mm

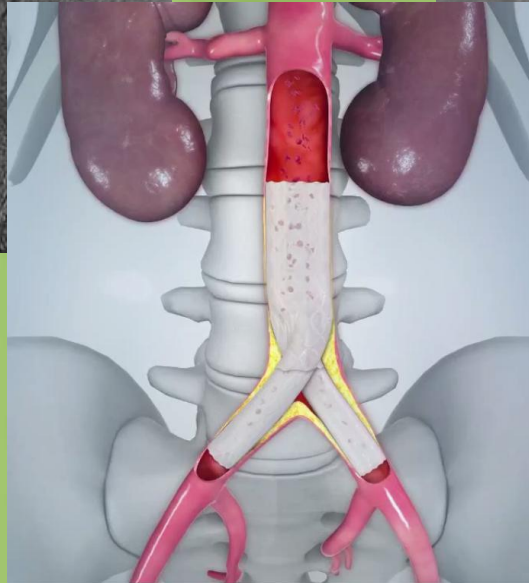
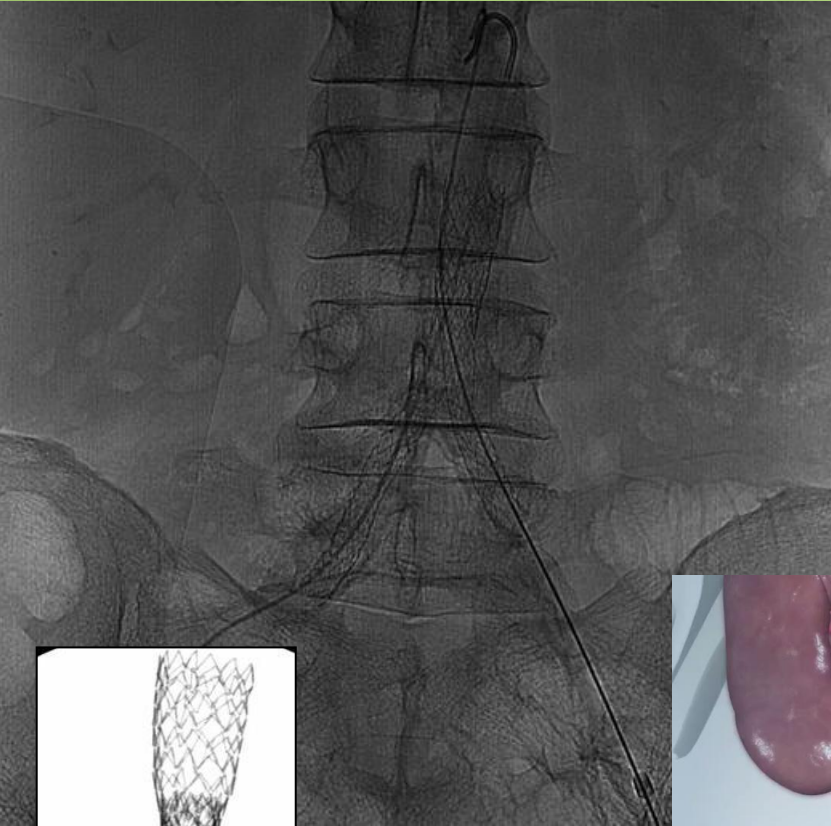




Vascular Clinic ZNA

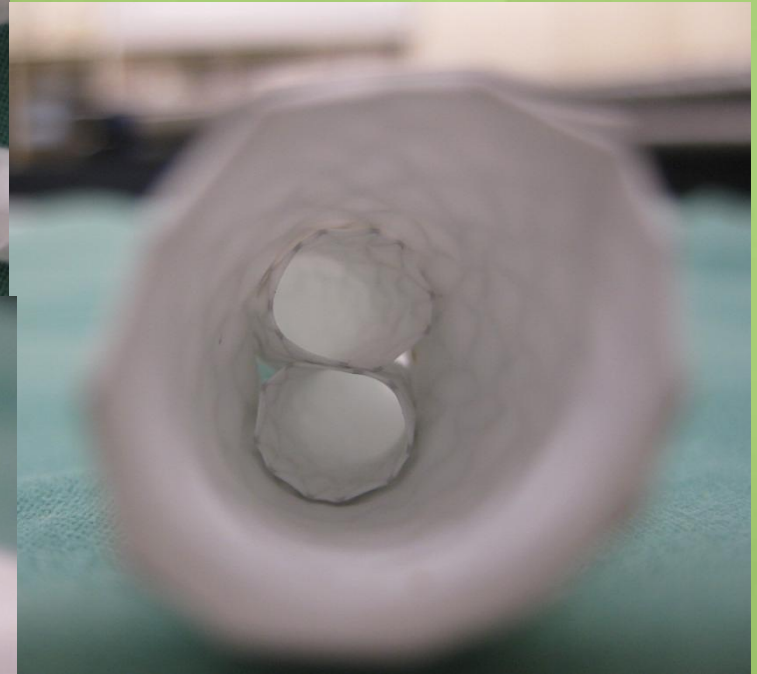
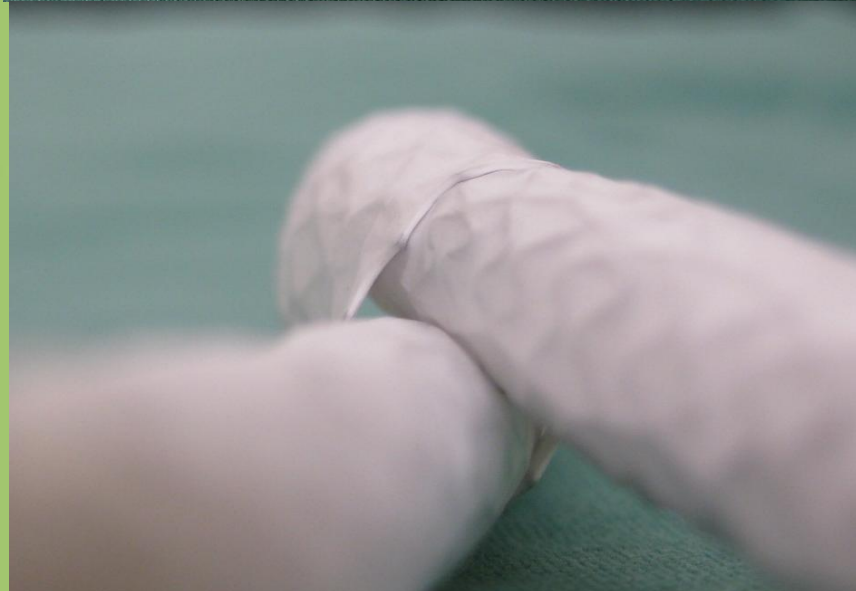
## Covered Stent UNCOVERED

### ***CERAB case***





## Covered Stent UNCOVERED







## Covered Stent UNCOVERED





## **Conclusions**

- **covered stent use : not only for acute problems**
- **covered stents can be used for treatment of chronic stenotic or occlusive lesions**
- **short and mid-term results:**
  - **encouraging**
  - **with evidence of sustained clinical benefit**
  - **without signs of accelerated in-stent restenosis.**
- **larger population & longer follow-up is needed**
- **other benefit :**
  - **large variety of (un)expected aortoiliac lesions can be dealt with this technique**



**Thank you  
for  
your attention**

**Spasibo zha  
vashe vnimanie**