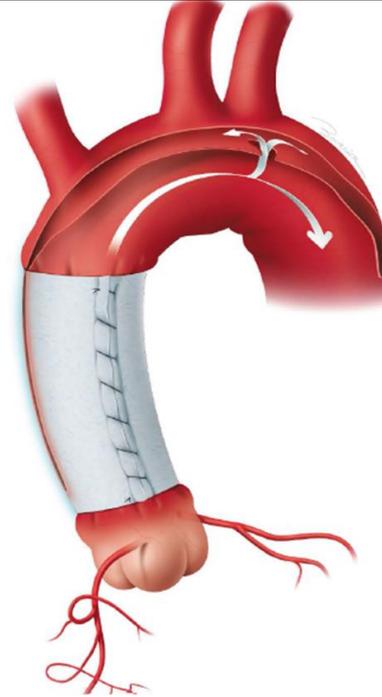


Off Pump Wrapping in Acute Type A Aortic Dissection



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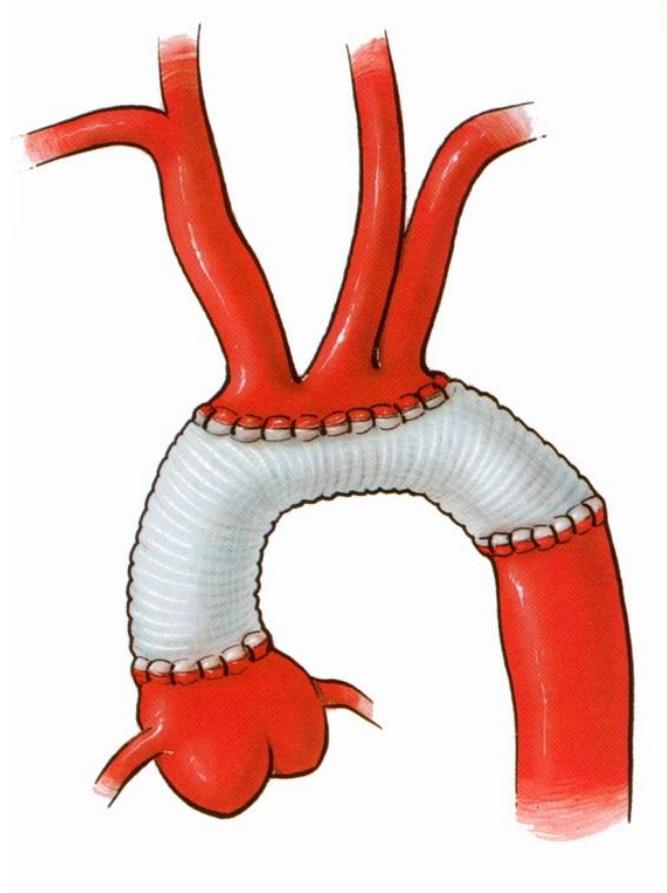
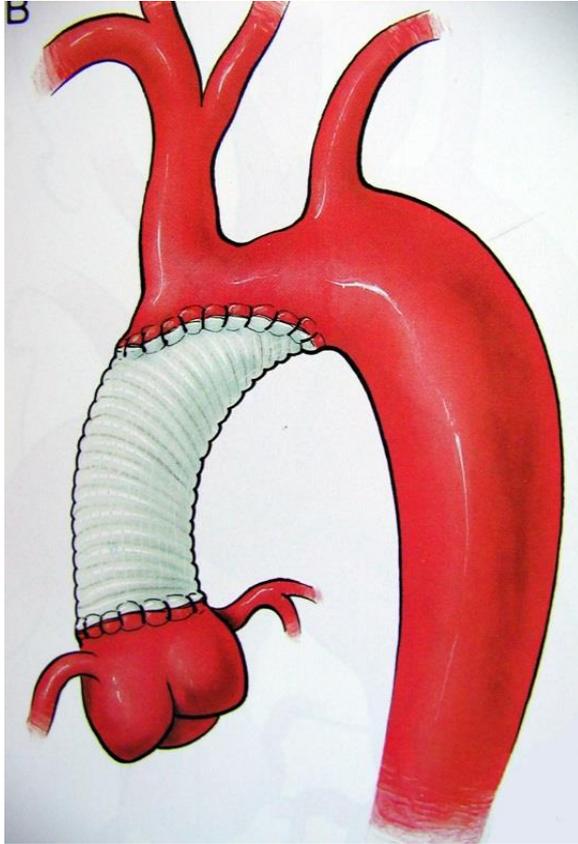


Acute Type A Aortic Dissection (Background)

- Surgical emergency
- Conventional surgical Tt carries high morbi-mortality
- **Patient's age is a significant and independent risk factor for in-hospital mortality (IRAD)**
- Conservative treatment is associated with poor outcomes due to the risk of aortic rupture

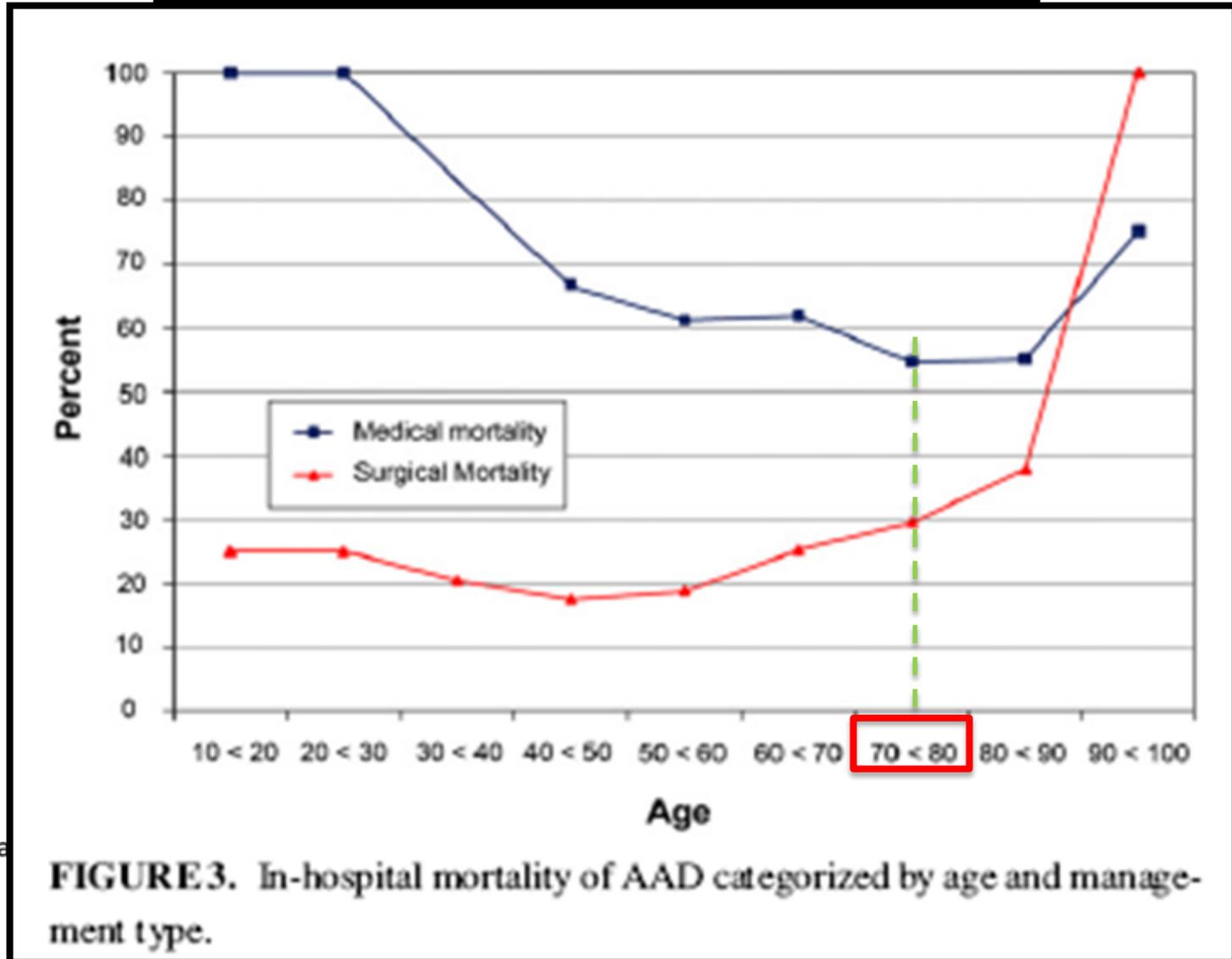


Surgical Treatment

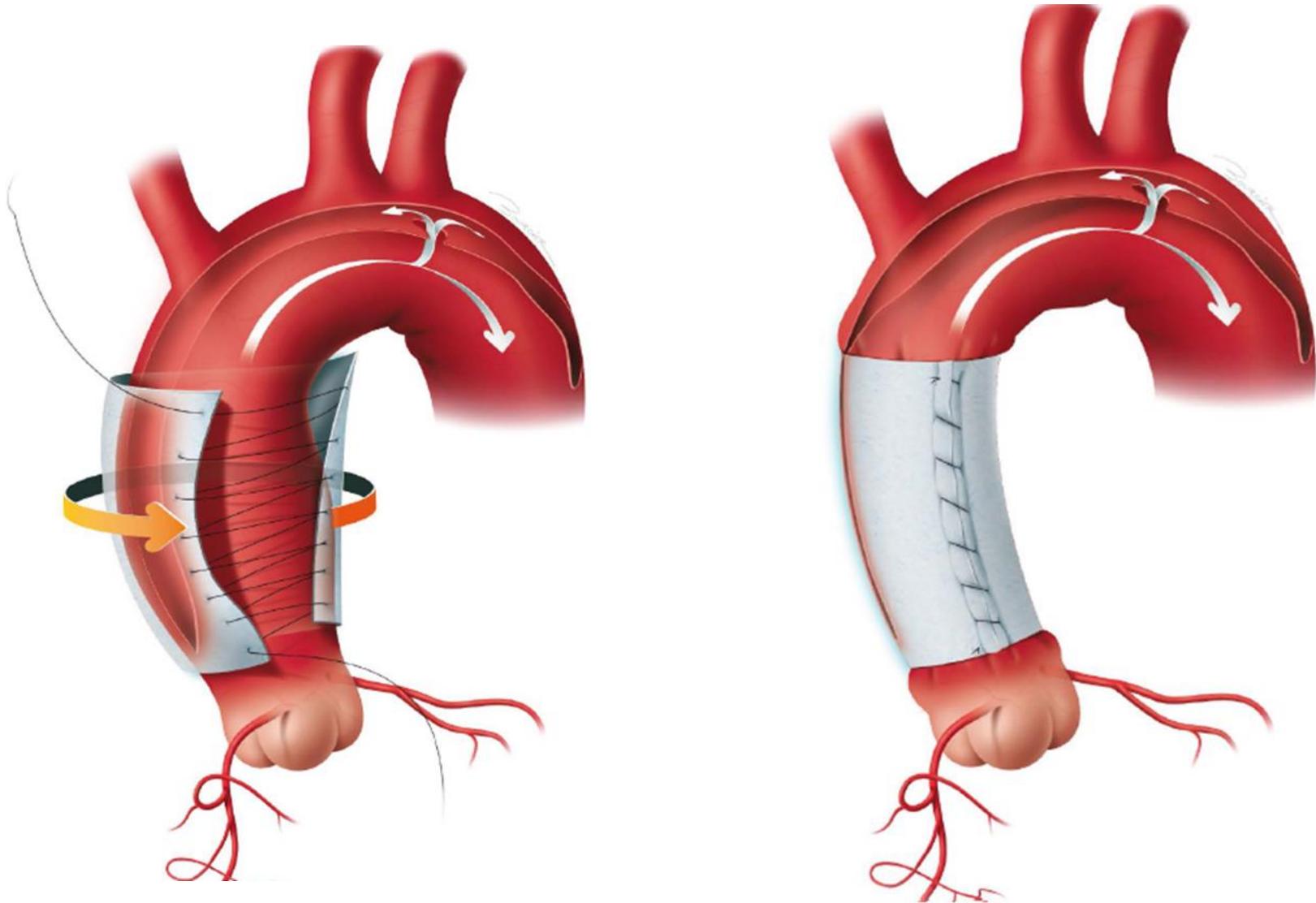


Role of age in acute type A aortic dissection outcome: Report from the International Registry of Acute Aortic Dissection (IRAD)

The Journal of Thoracic and Cardiovascular Surgery • October 2010



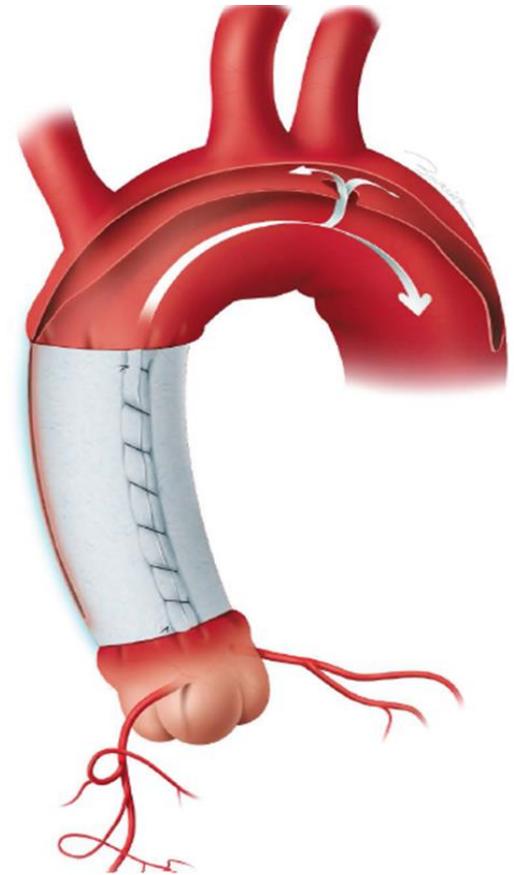
Alternative approach: off pump wrapping



Wrapping of the Ascending Aorta in Acute Type A Aortic Dissection :

→ Avoid :

- **intra pericardial aortic rupture**
- **complications of extensive aortic replacement.**

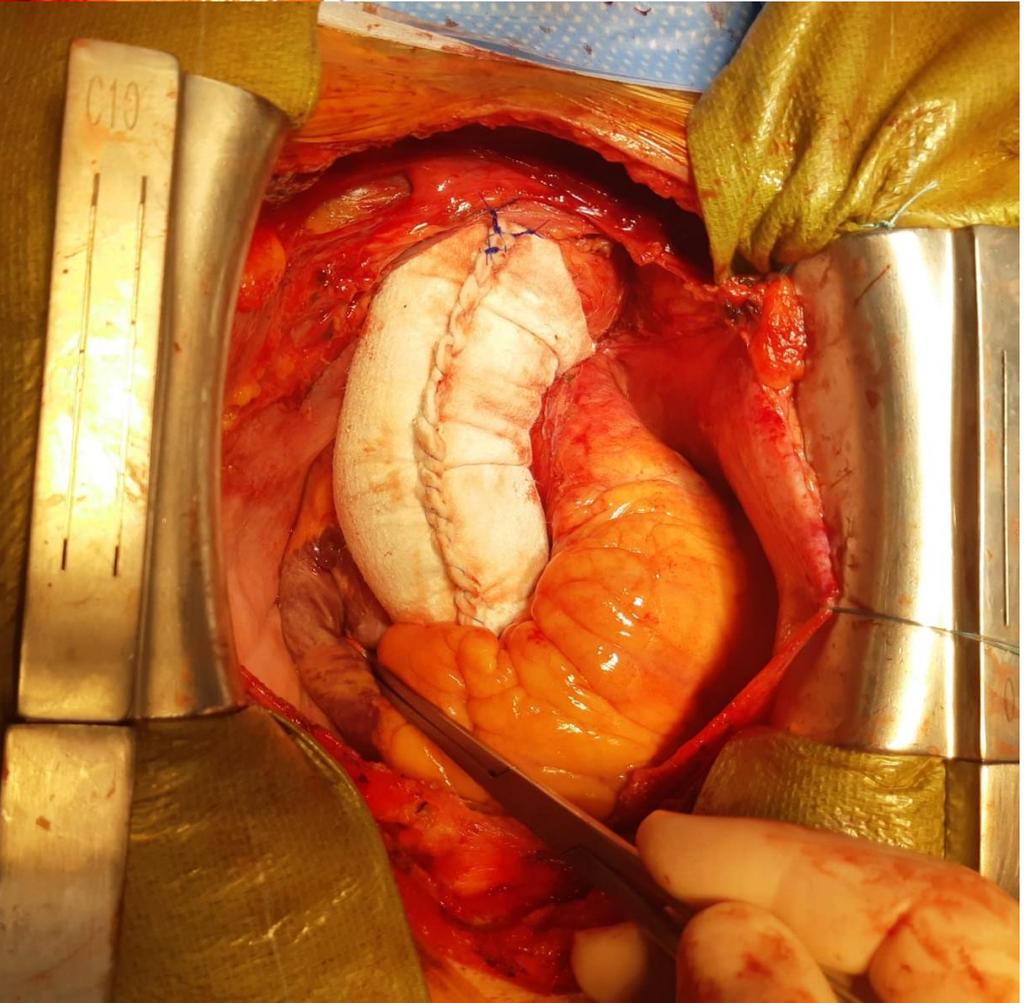
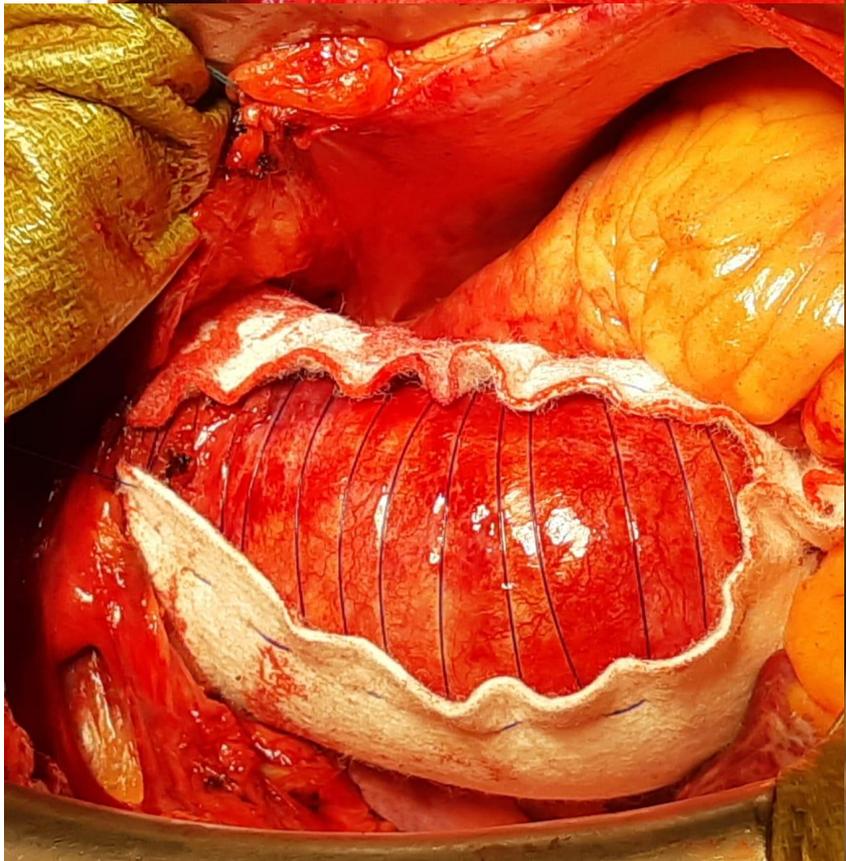


Ascending aorta wrapping for high risk acute aortic dissection

- Pre-requisites :
 - **Absence of significant aortic valve insufficiency**
 - **Absence of threatening peripheral malperfusion**
 - performed through median sternotomy
- **without cardiopulmonary bypass**
- ascending aorta is divided from pulmonary artery trunk and right pulmonary artery
- **Teflon plaque** tailored to tightly wrap. the aorta from the coronary ostia till the innominate artery.

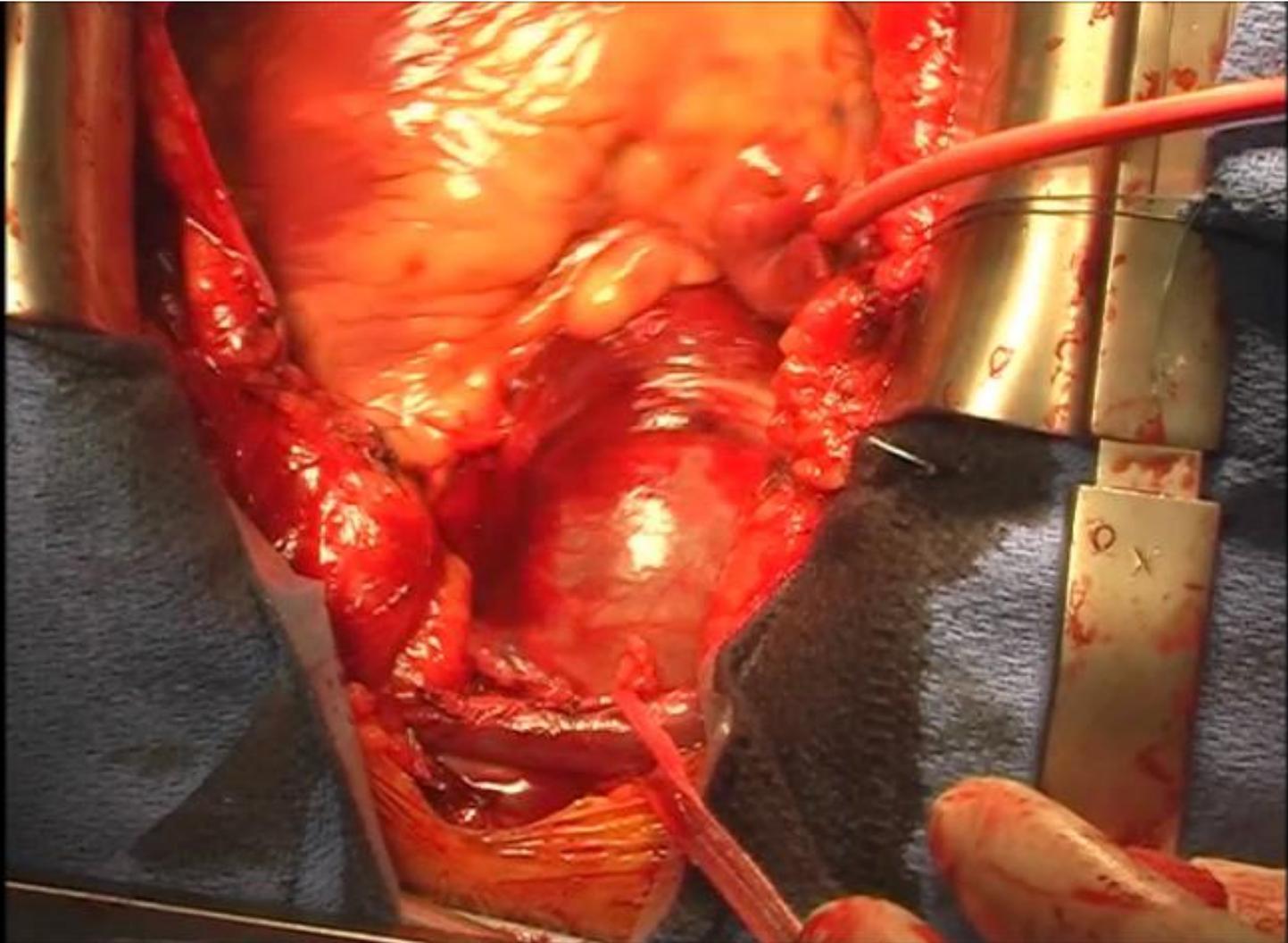


Off pump wrapping Asc. Ao.



Off pump wrapping Asc. Ao.

- Safety: CPB back up
- Median sternotomy
- Controlled arterial hypotension (75 mmHg)
- Reduce dramatically blood pressure during approximation
- choice of the graft: Teflon Felt plaque



Marie Lannelongue Hospital Experience 2008 – 2019: **40** cases

-Age: 77 [46-95] years

-LVEF<50%: 29%

-Chronic pulmonary disease : 18%

-Coma (n=1)

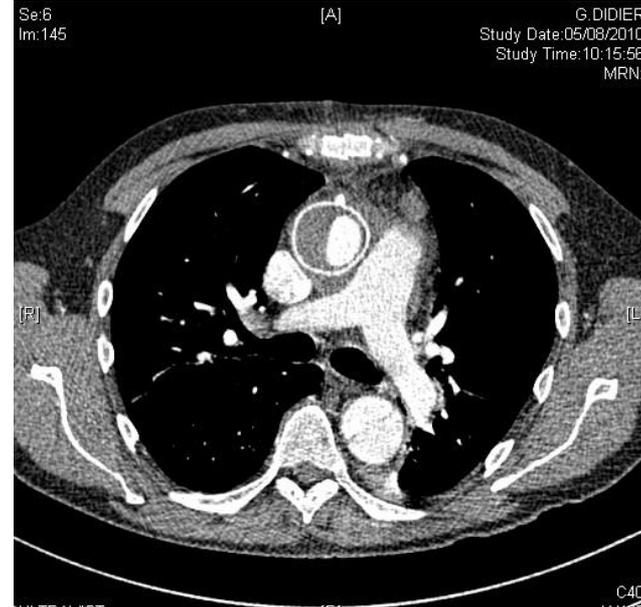
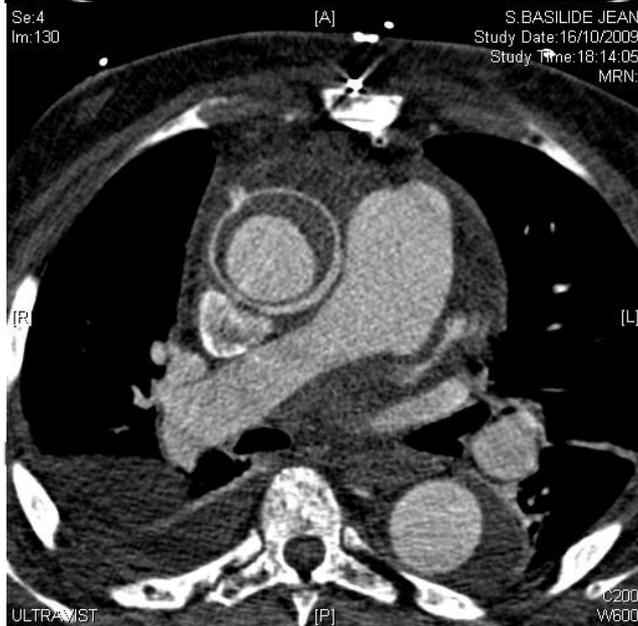
-EuroSCORE 1: 11.5 [9-16]

→ Patients at very high risk for conventional surgical repair



Surgical procedures	N=40
Wrapping of ascending aorta	19
Wrapping of ascending aorta and aortic arch	19
Wrapping of ascending aorta, arch and isthmus	2
Post-operative course	
Mechanical ventilation > 24h	8
Pneumopathy	6
Peripheral malperfusion	3
Septic shock	2
Dialysis	1
Stroke	0
Mean ICU stay (days)	6 [1-24]
Mean Hospital stay (days)	18 [5-30]

Reapplication of intimal flap n=20/37



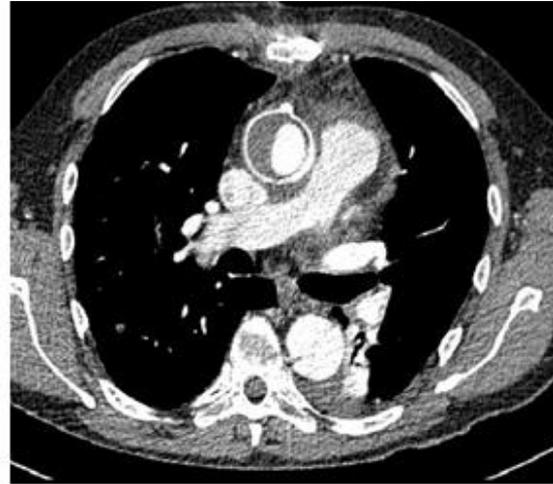
Complete regression of the false lumen in the reinforced ascending aorta

PRE OP

POST OP

6 MONTHS

Case 1

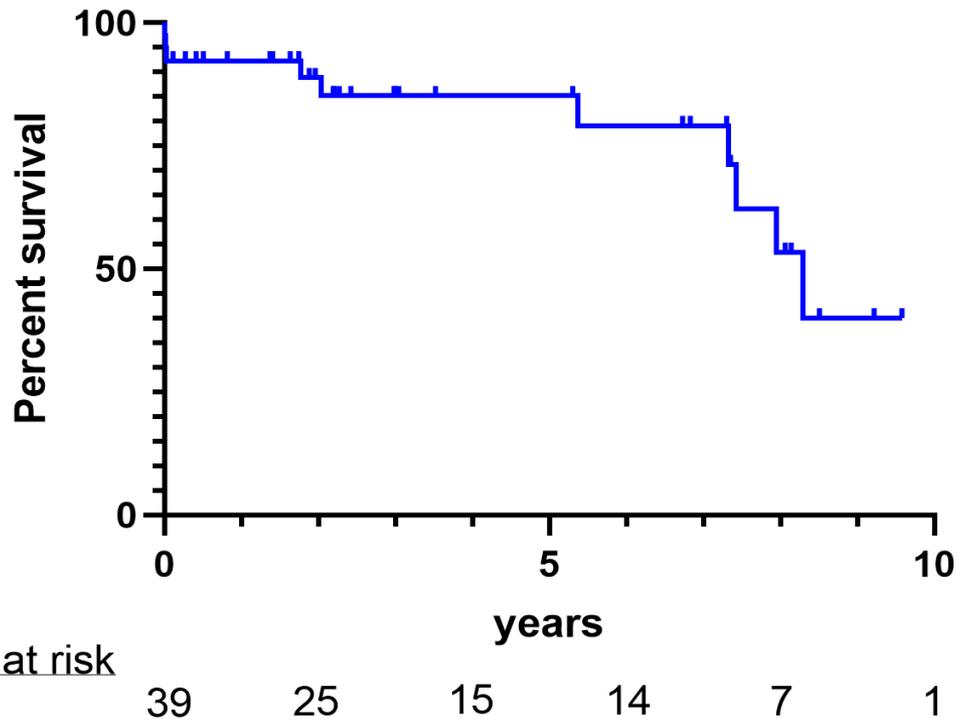


Case 2



Mortality:	N (%)
Intra-operative mortality	0 (0%)
Hospital mortality	3 (7,5%)
Late death (non related to aortic event)	6 (16,2%)

Survival proportion



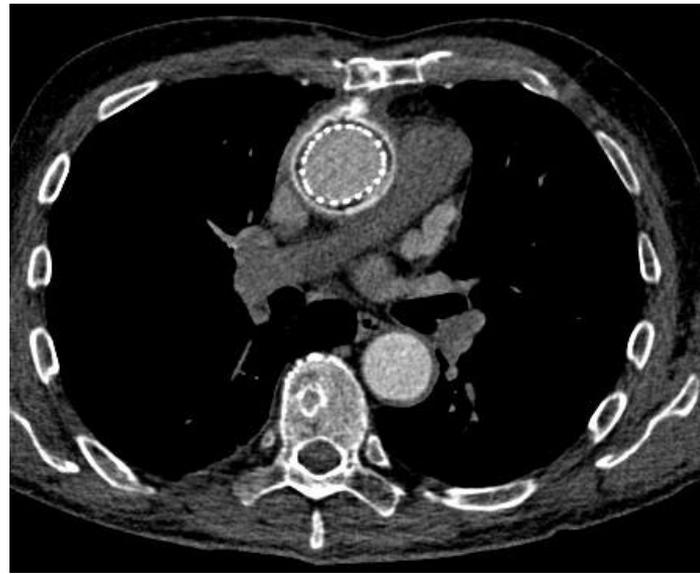
89% at 2 years
85% at 5 years

**All survivors are
doing well and are
self catering.**

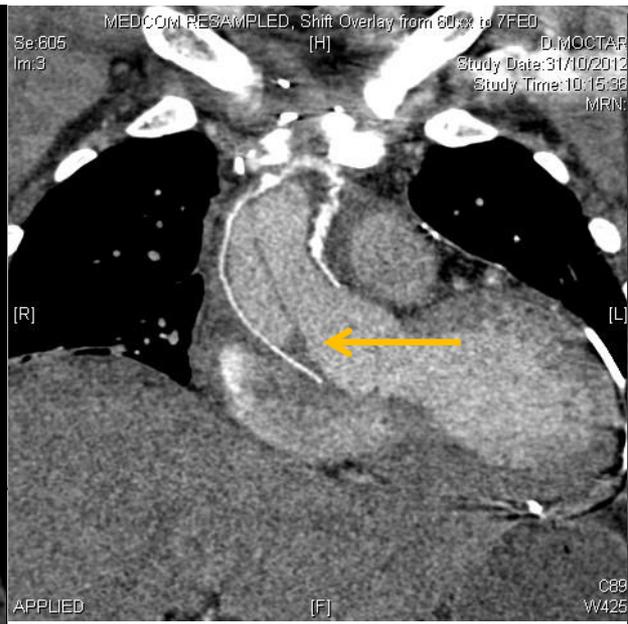
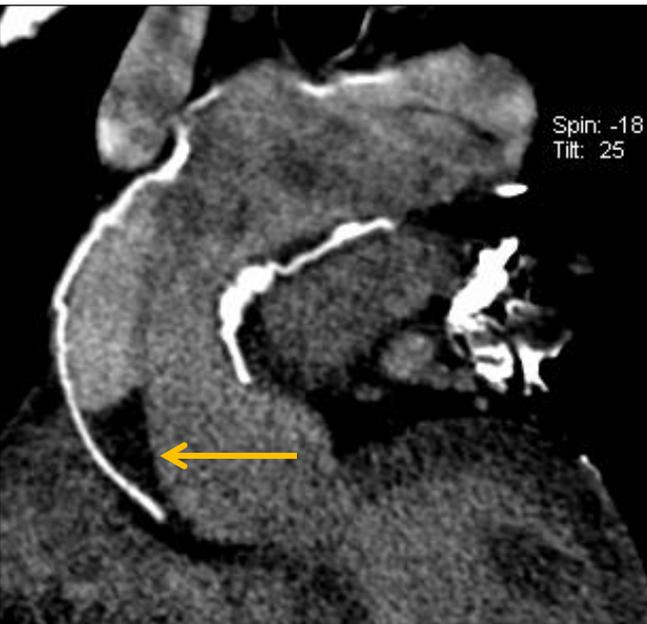
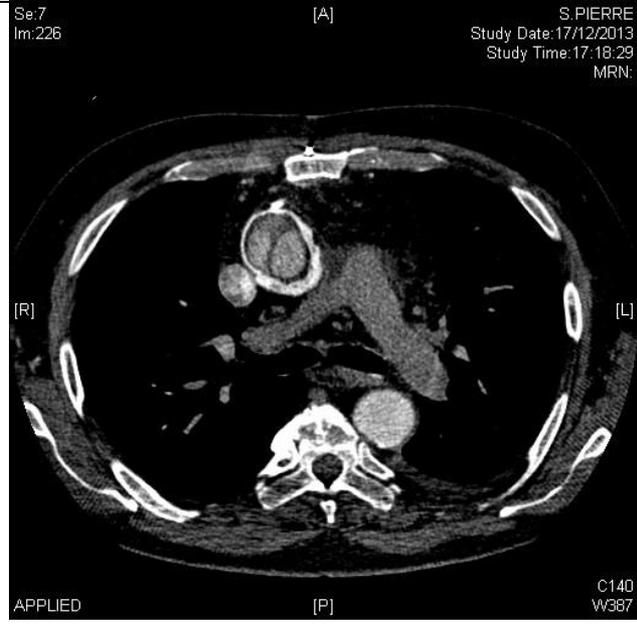
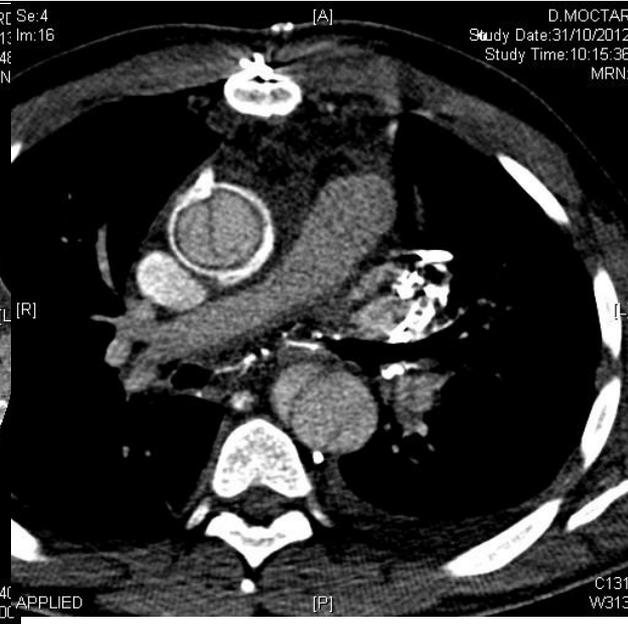
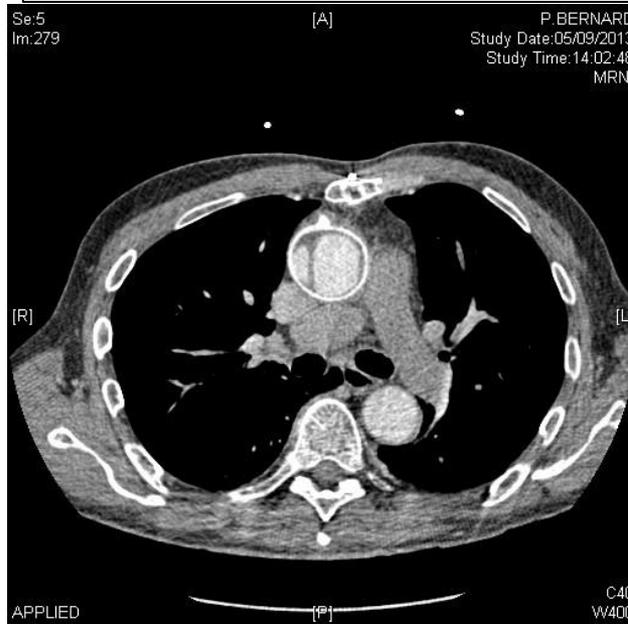
Wrapping of the ascending aorta in acute type A aortic dissection

- Prevents intrapericardial rupture of the ascending aorta
- Reduces post-operative morbidity and mortality
- Provides early recovery in the elderly





Persistent circulating false lumen in 3 patients



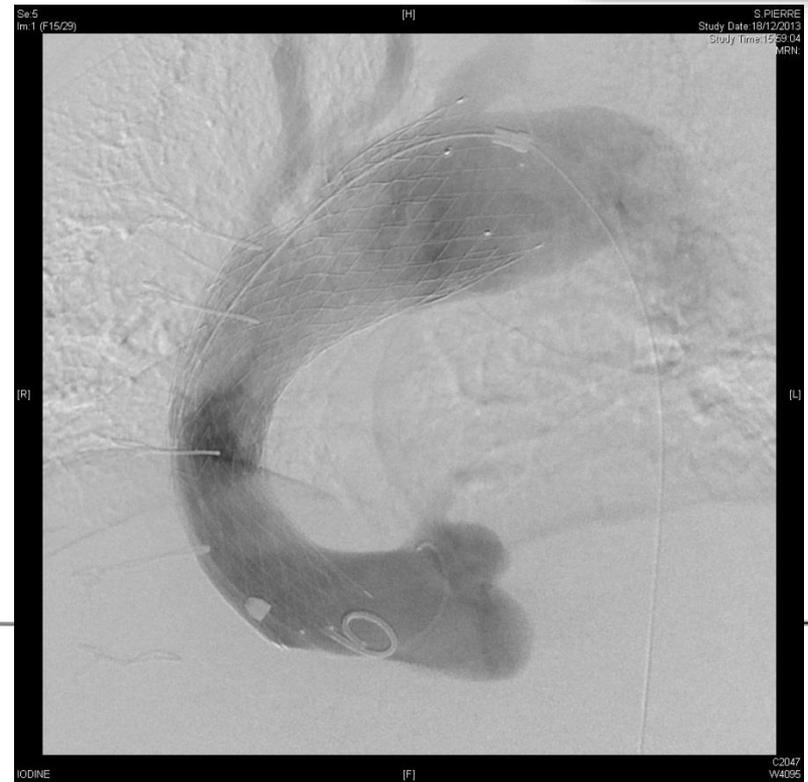
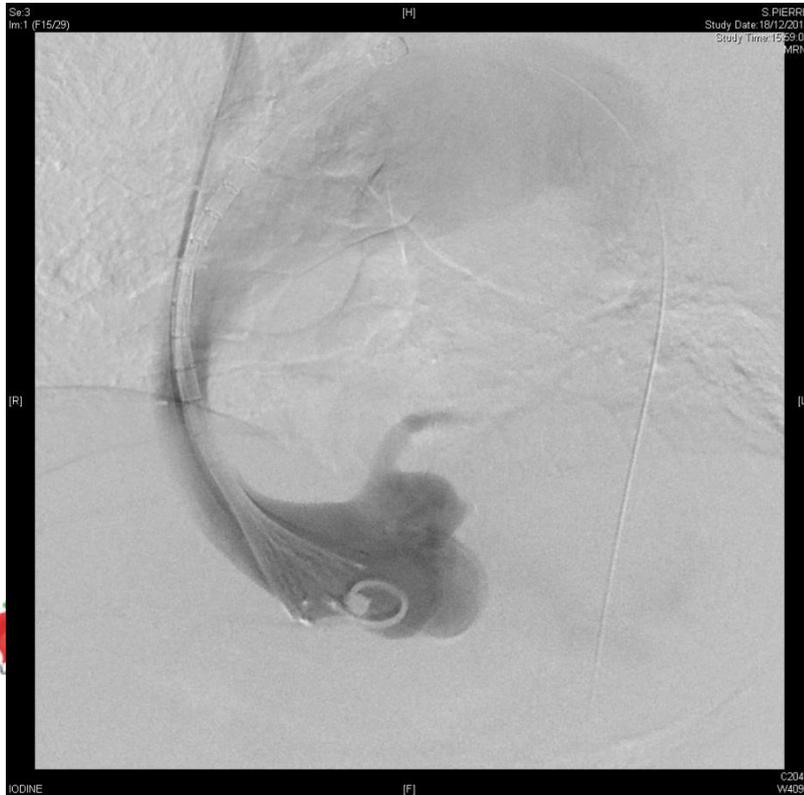
Percutaneous stenting of the reinforced ascending aorta

Under local anesthesia

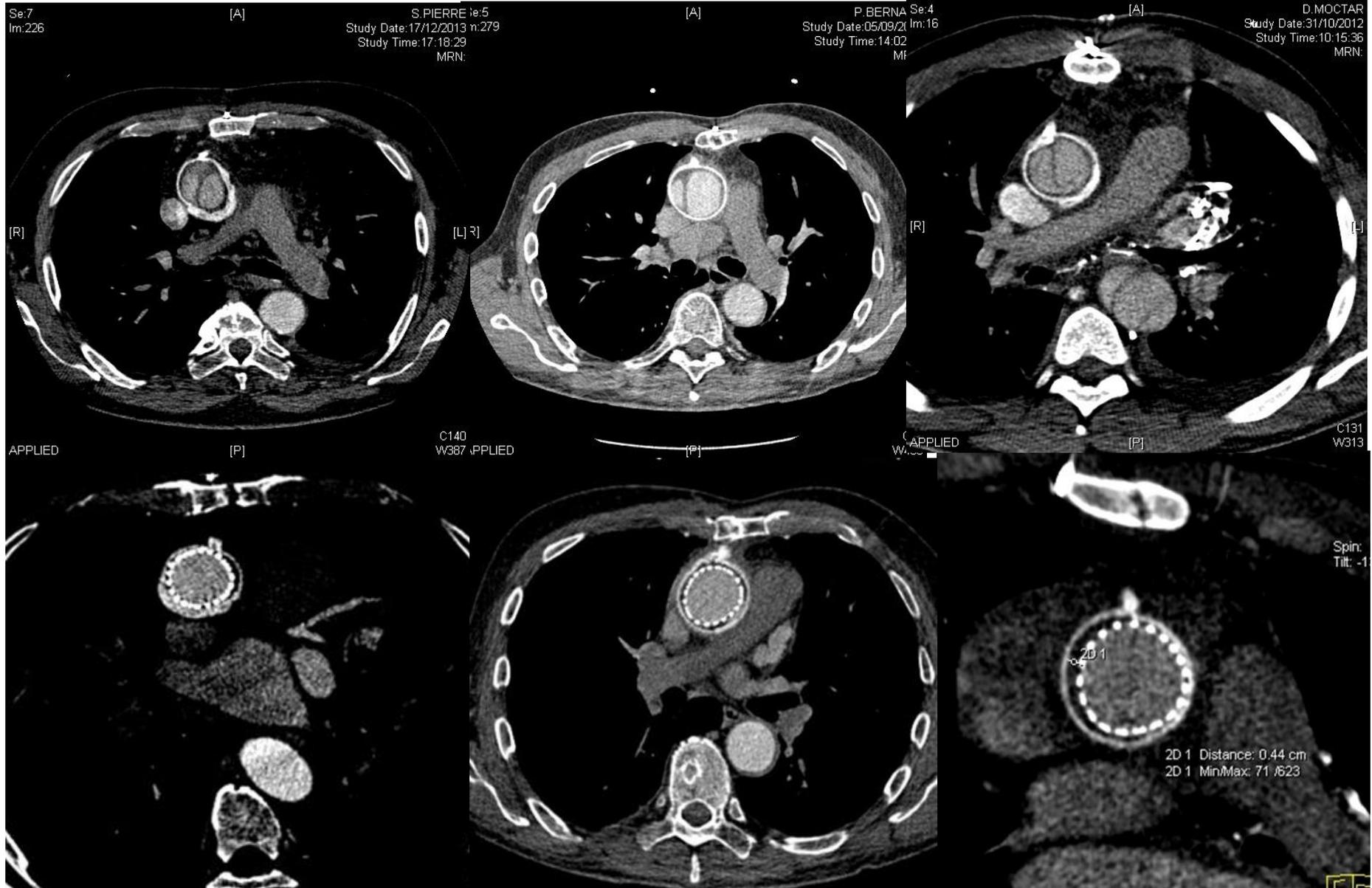
Through the femoral artery approach (10F catheter)

Aortography through a pigtail probe confirmed the true lumen

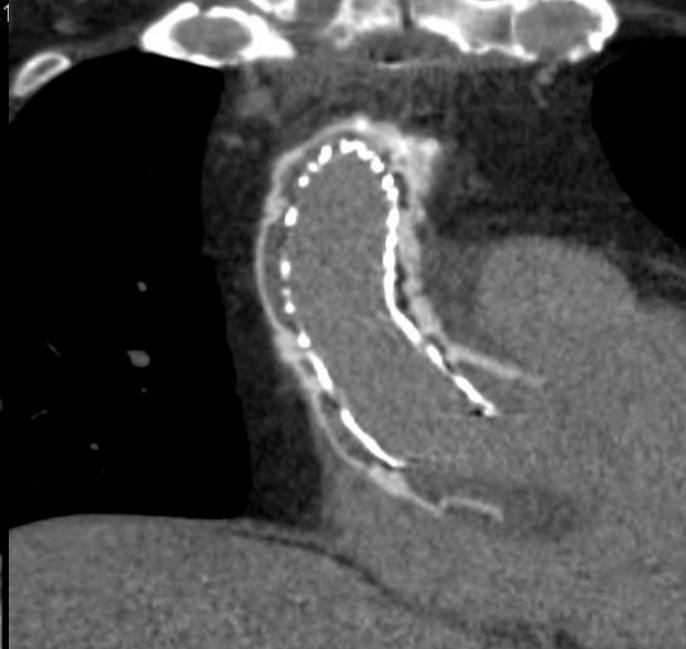
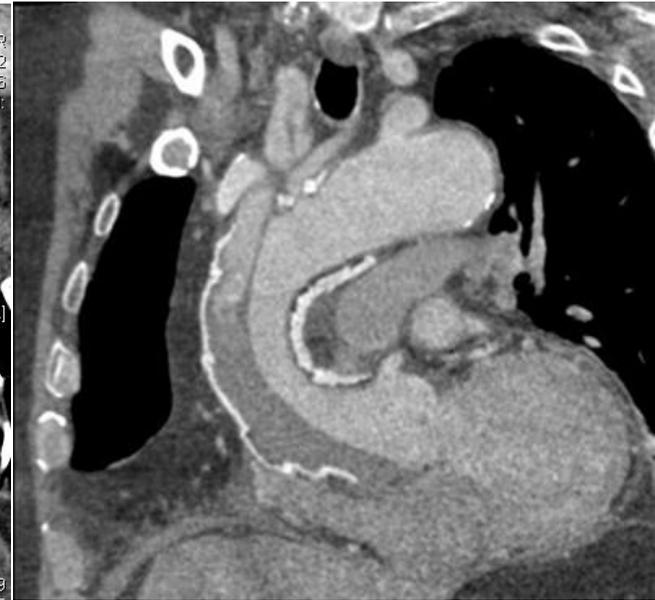
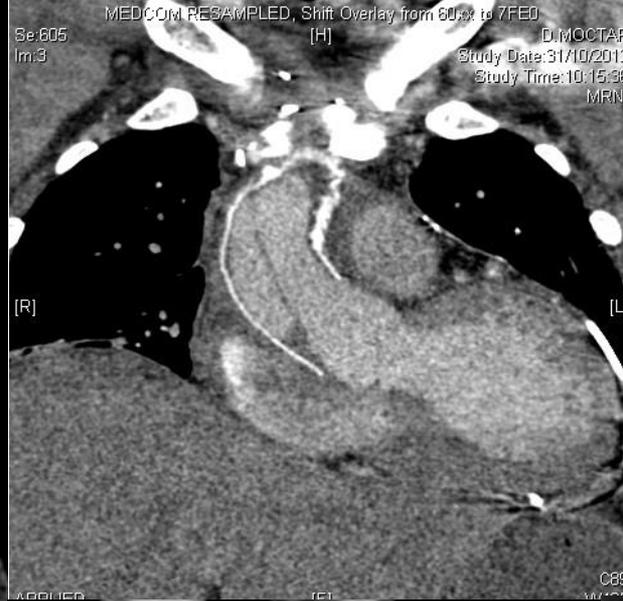
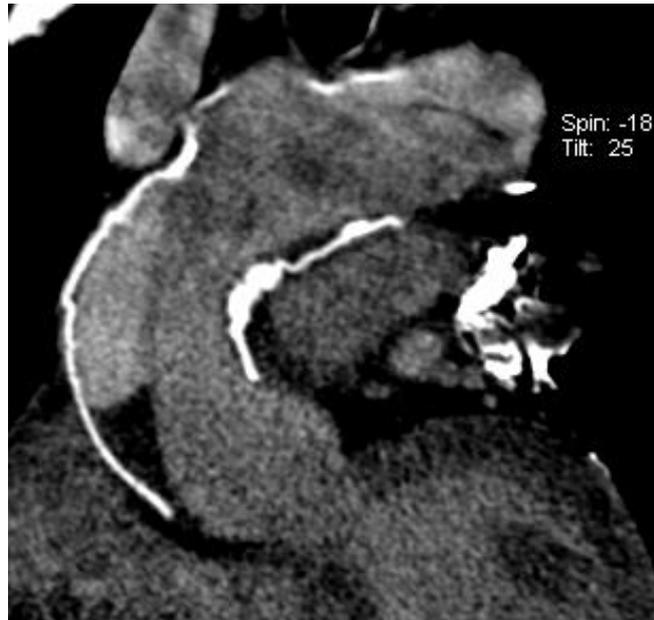
Non-covered nitinol self expandable stent was deployed in the true lumen



Non covered stenting in the reinforced ascending aorta

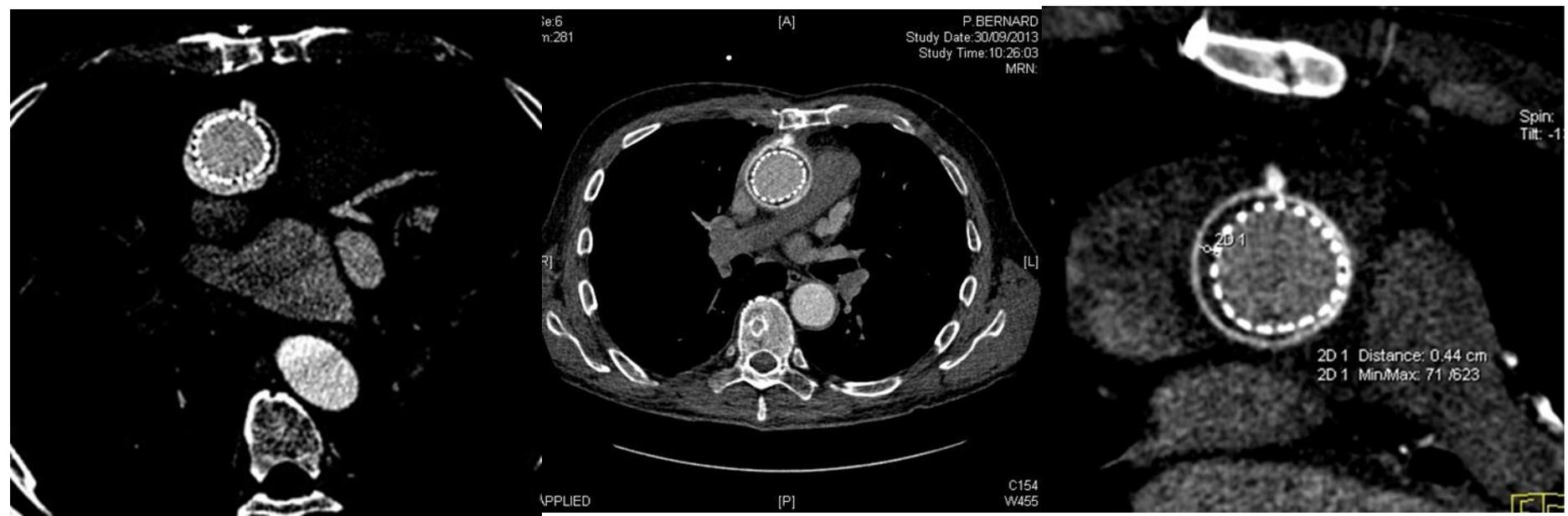


Non covered stenting in the reinforced ascending aorta

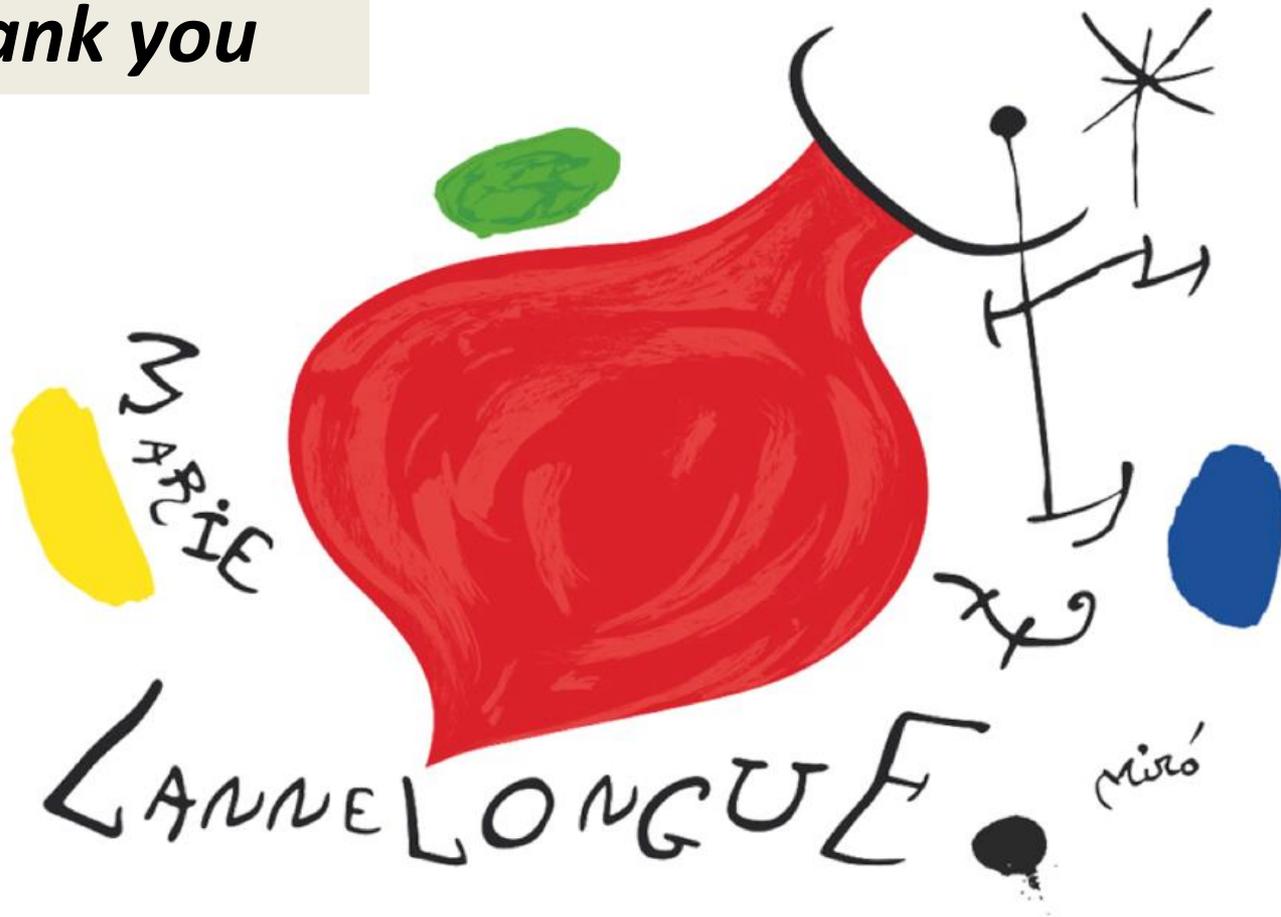


Off pump wrapping associated with percutaneous stenting of the ascending aorta

- is safe and feasible
- could be an alternative in high risk patients
- we describe the first in man 3 cases in acute type A aortic dissection



Thank you



Hôpital Marie Lannelongue

Beirut, Lebanon

Se:4
Im:257

[A]

M. RAYMOND
Study Date: 14/11/2011
Study Time: 17:49:11
MRN:

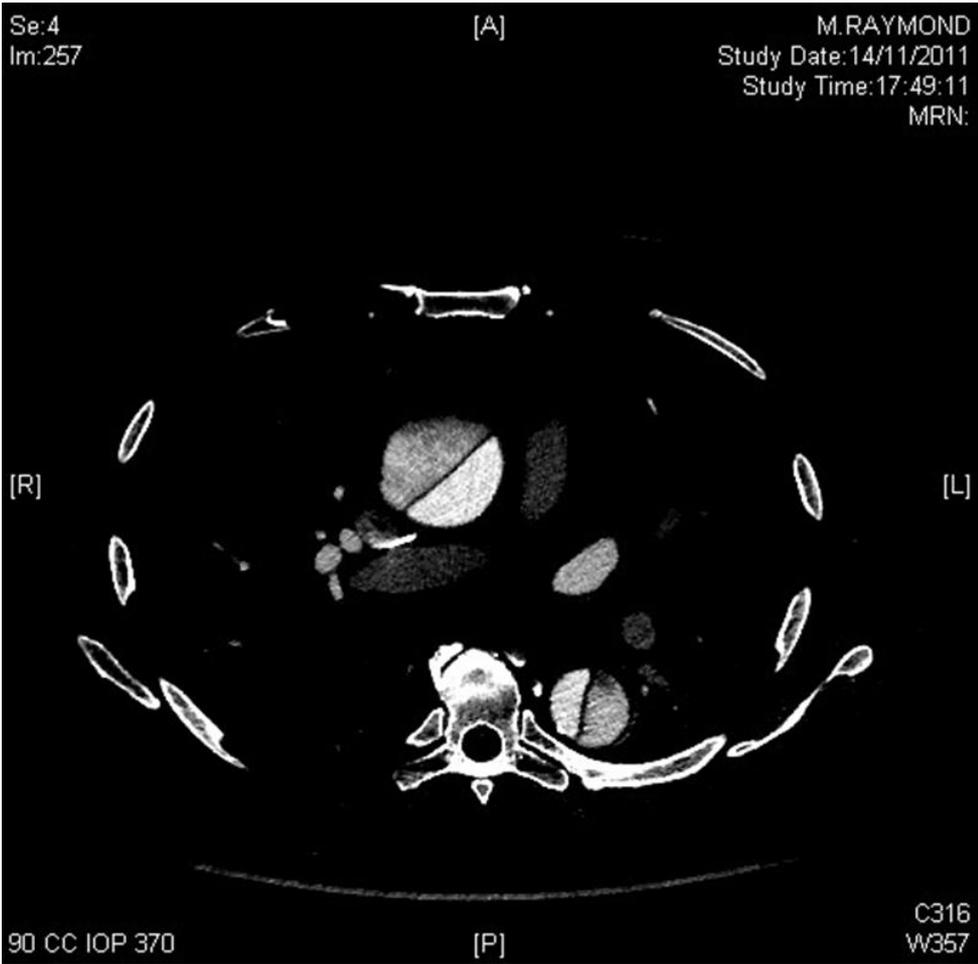
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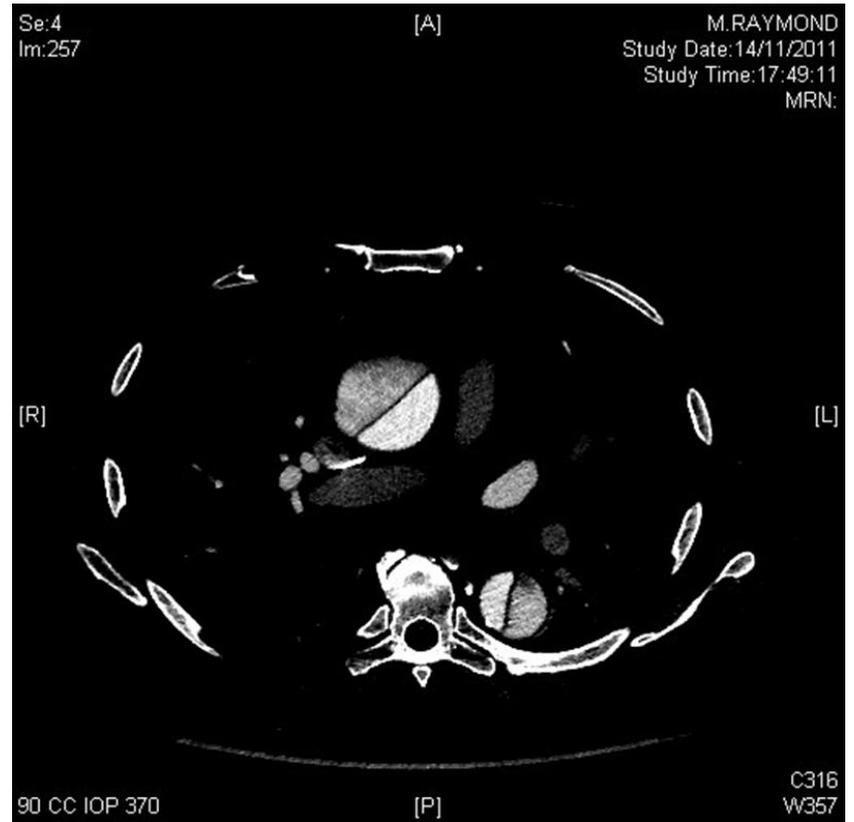
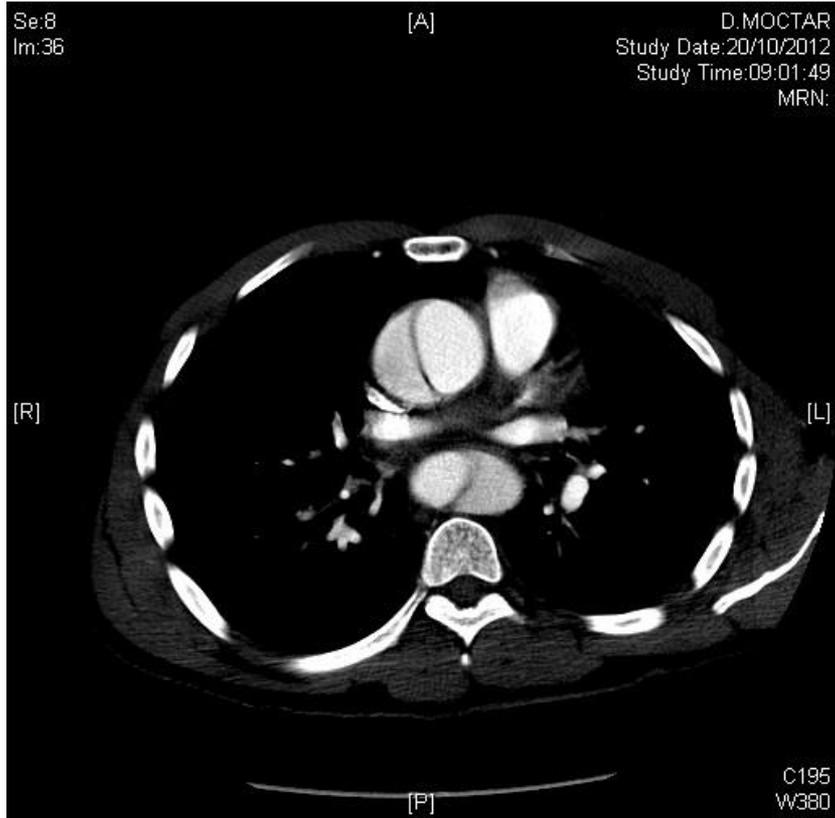


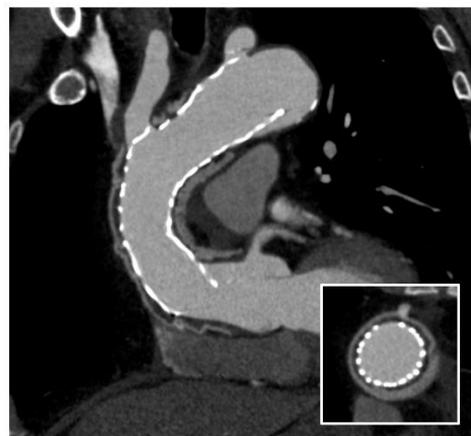
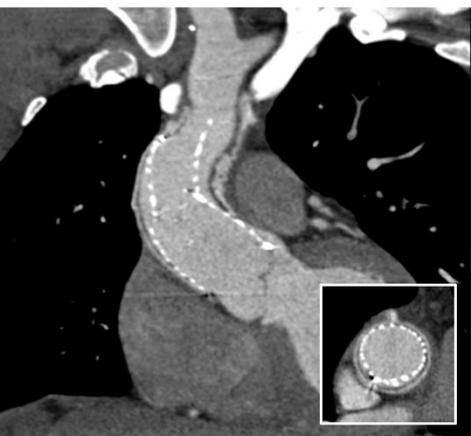
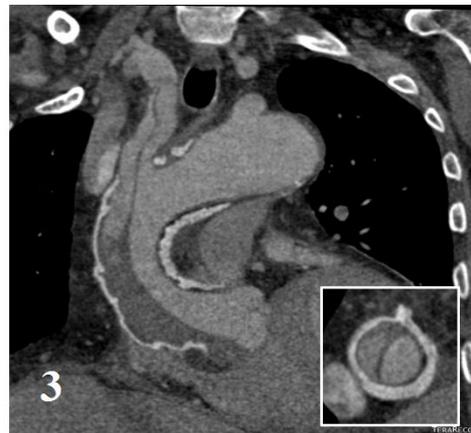
RETROGRADE TYPE A AORTIC DISSECTION



Marie Lannelongue









Marie Lannelongue



Beirut, Lebanon