

Coil Embolization of Giant Right Coronary Artery Aneurysm with unknown cause

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Case ST 76y.o male

Problem list

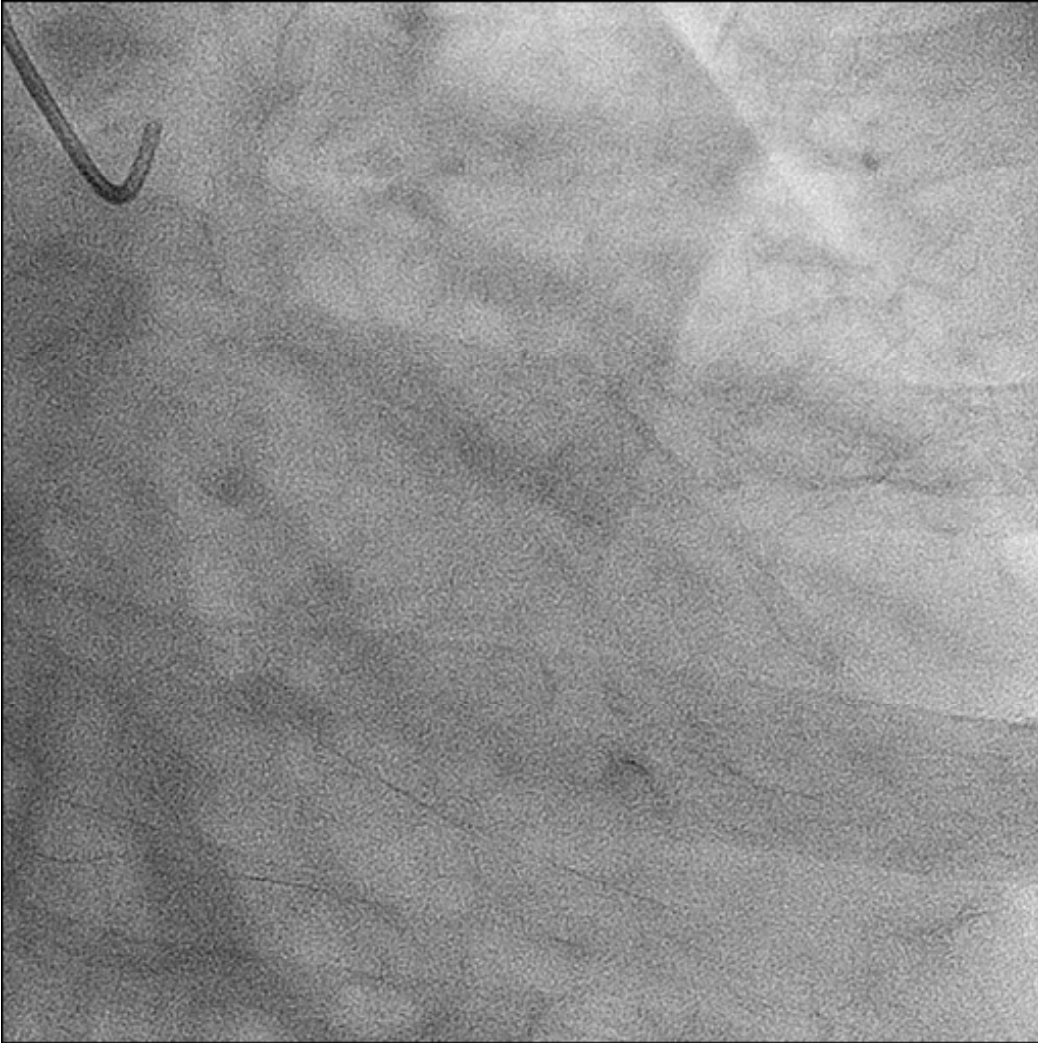
- #1. Hypertension
- #2. Dyslipidemia
- #3. Diabetes Mellites
- #4. Choronic kidney disease (Cr =2.2mg/dl eGFR=21.2)
- #5. Sick sinus syndrome (post PM implant)
- #8. Multiple Giant Coronary Aneurysm

- Pt have no history of Kawasaki disease, Behchet disease, and Collagen disease.

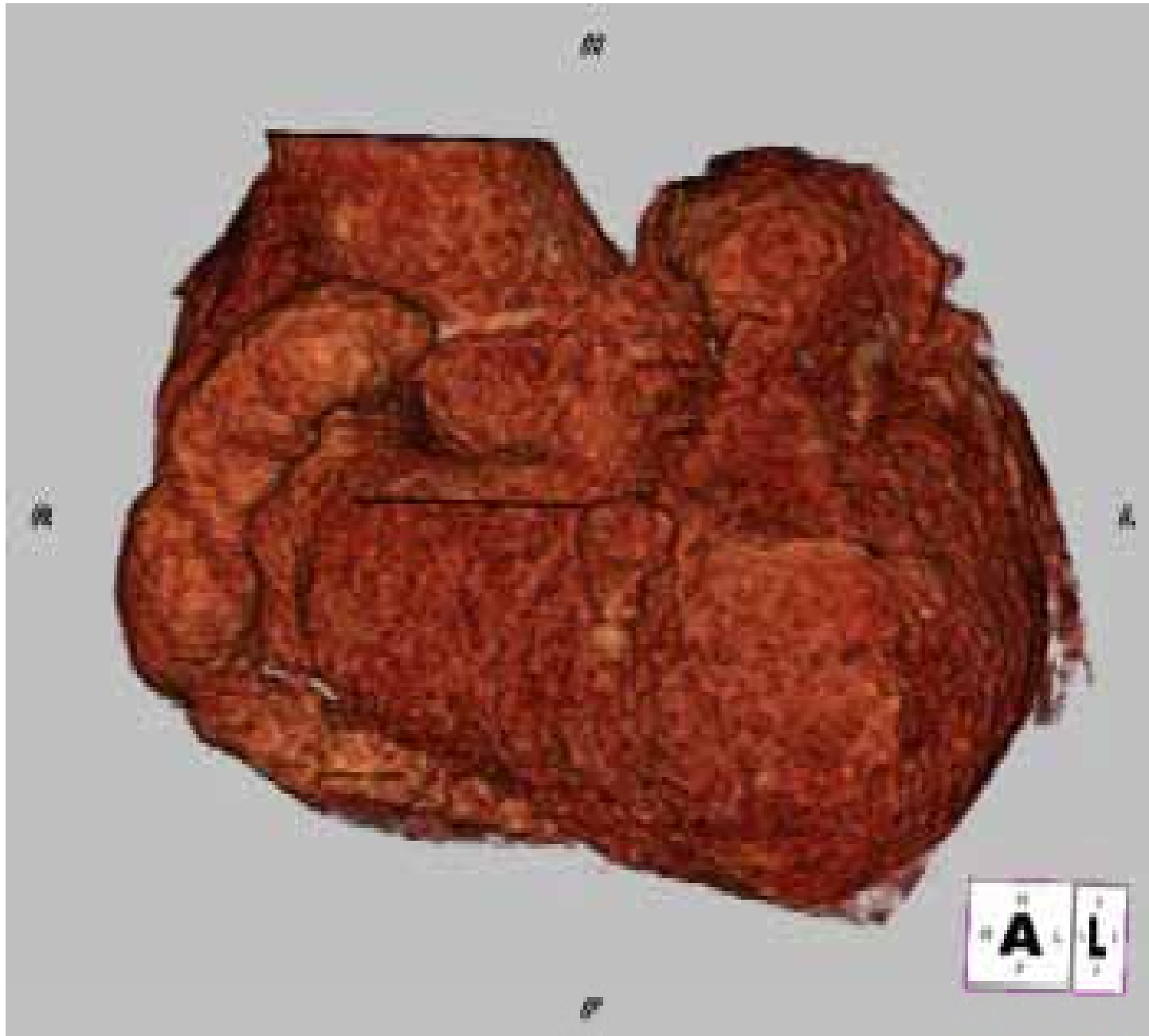
Present illness(1)

- The patient had a long history of multiple coronary angioplasties (first angioplasty in 1998).
- Coronary bypass surgery (LITA-LAD and SVG to RCA) was performed on 4/8/2008 with the diagnosis of subendocardial infarction as well as the presence of the coronary aneurysm.

Emergency cath study in 4/8/2008.

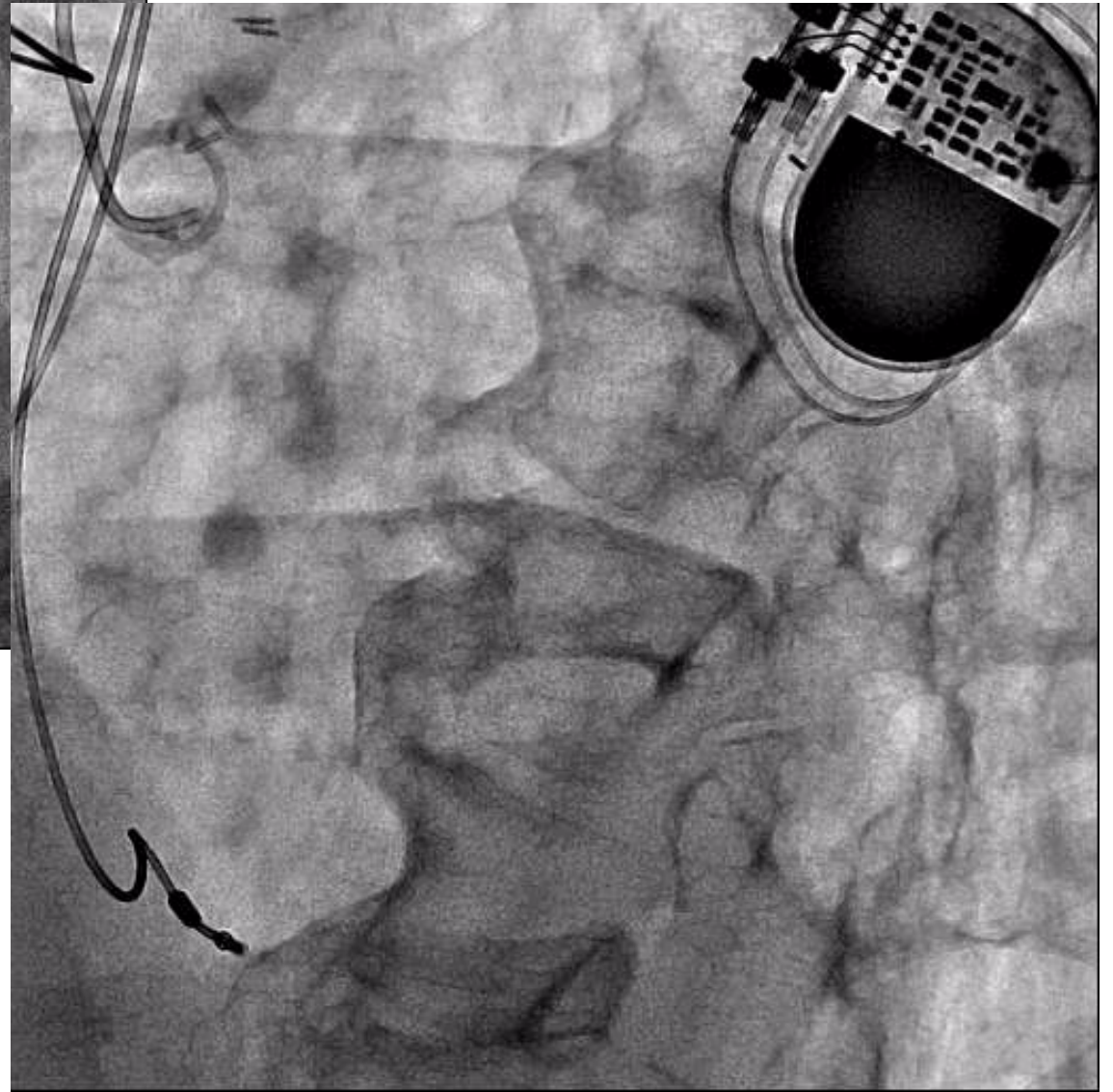
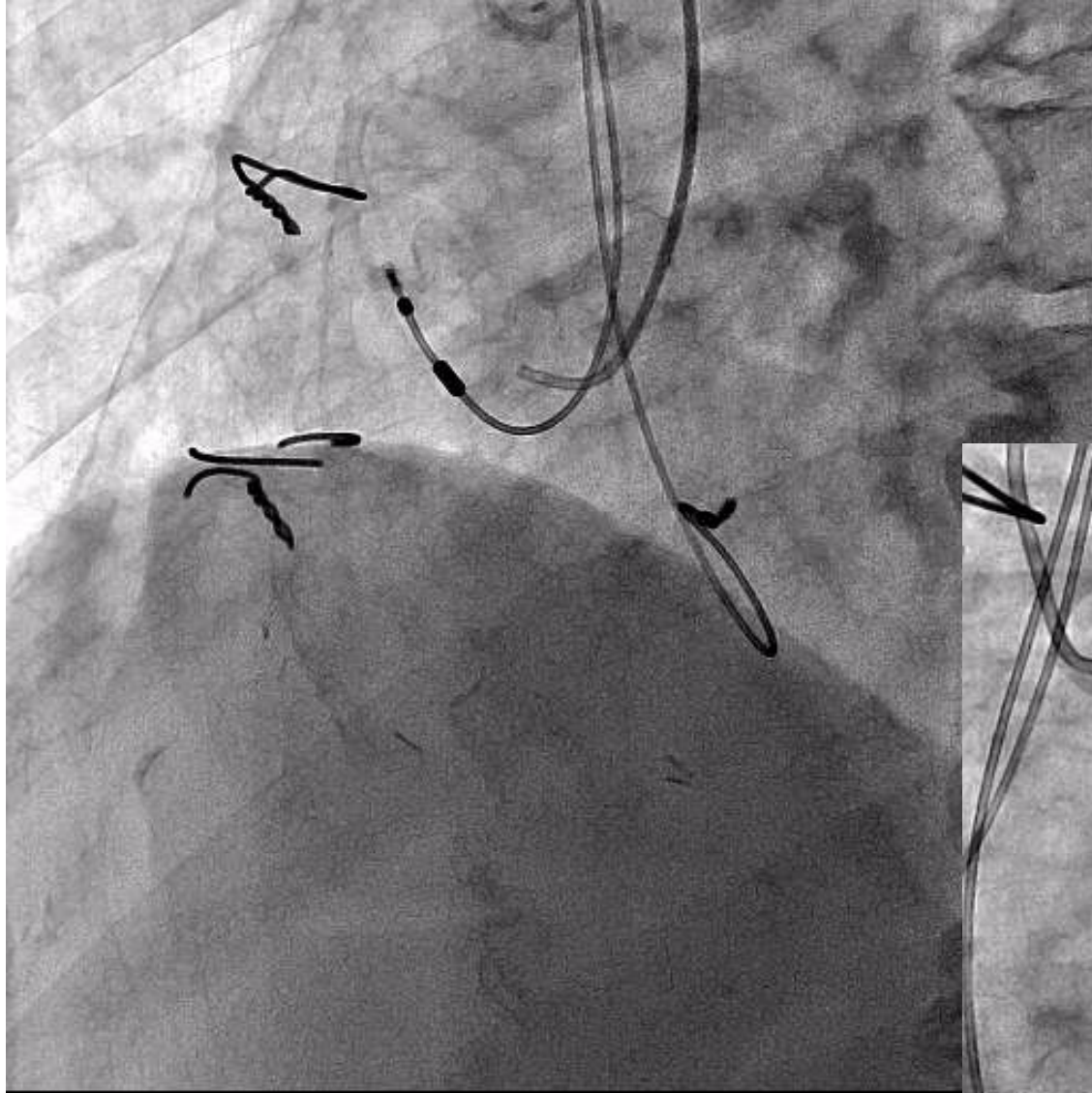


Volume Rendering image of plain CT 4/8/2008



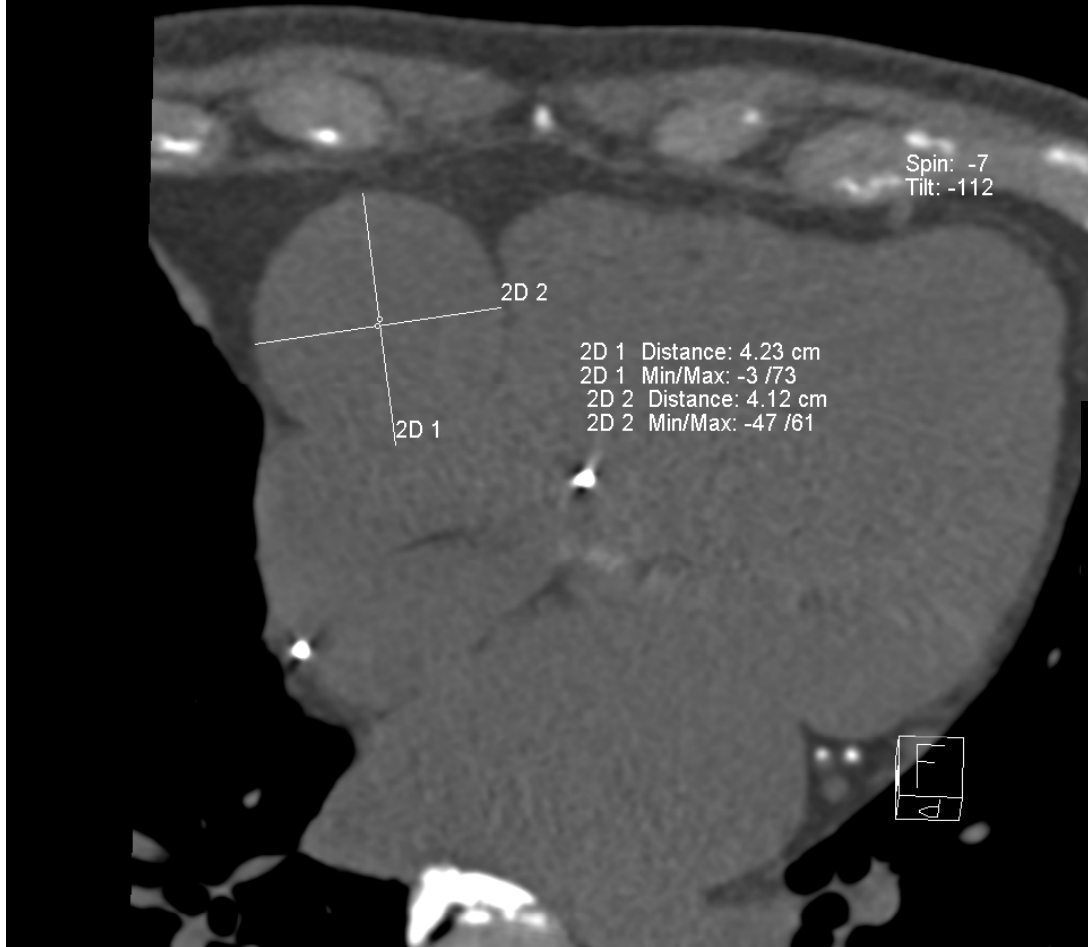
Present illness (2)

- After bypass surgery, he had been doing well for several years.
- Pt began to feel chest discomfort on effort again from February 2012.
- Due to the presence of the chronic kidney disease, minimum contrast angiogram was required to confirm the patency of bypass graft and progression of native artery.



Coronary angiogram was performed on 7/11/2012

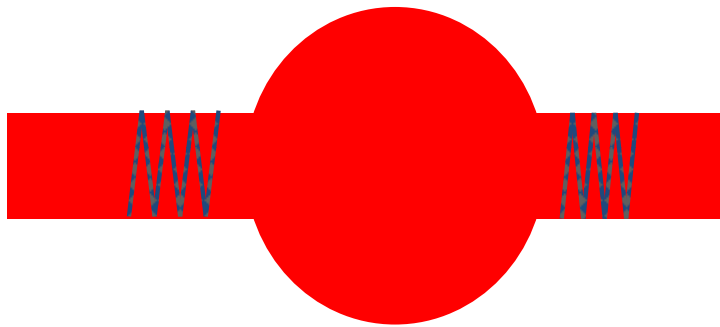
7/24/2012
gated plain MDCT



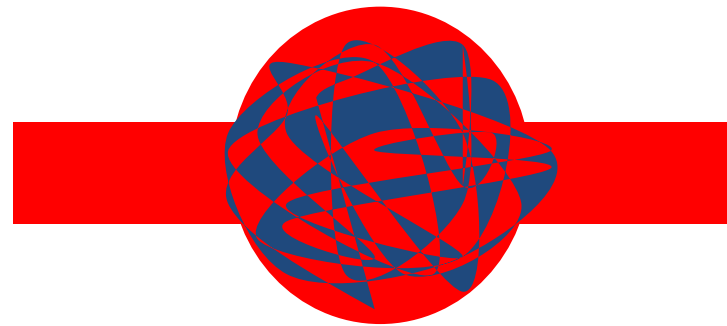
Coronary aneurysm
4.23*4.12*6.21cm

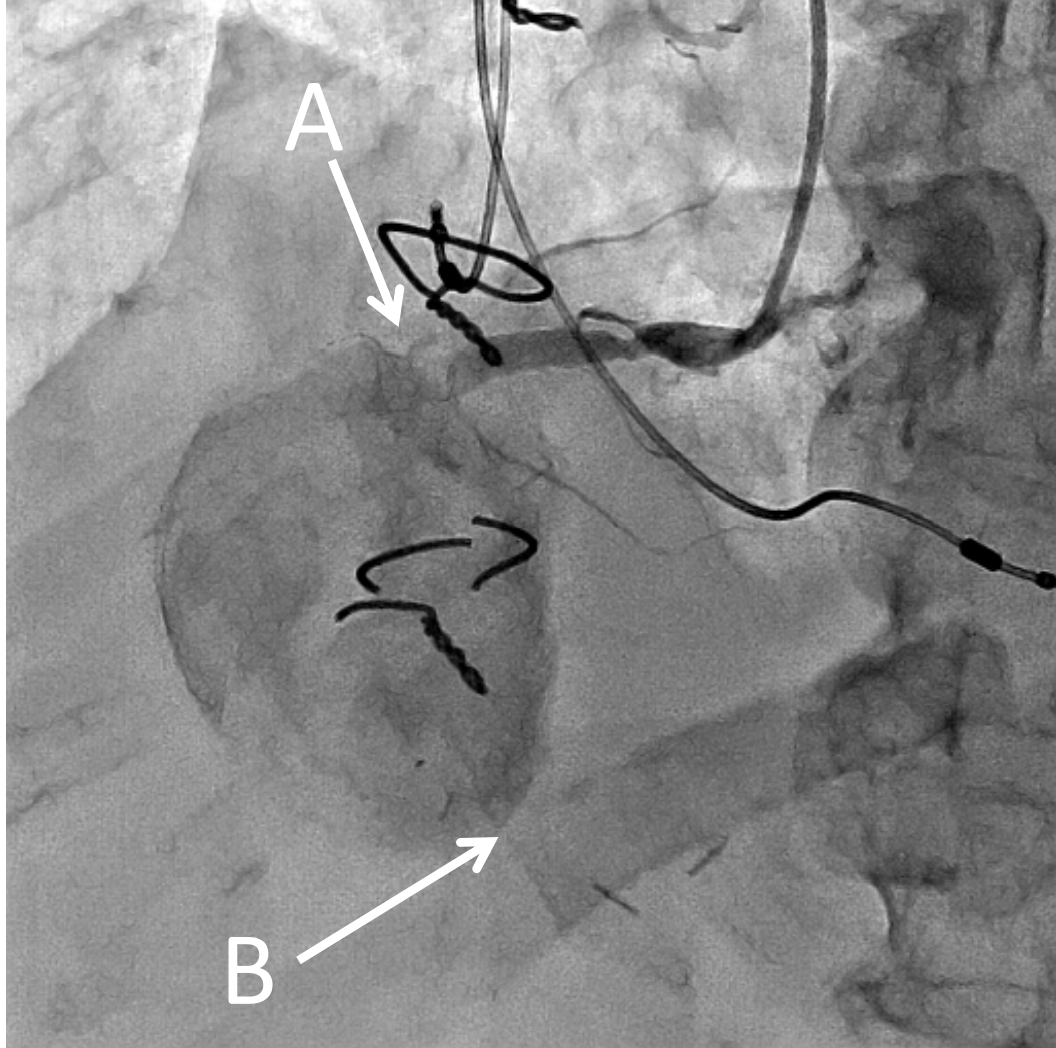
How to treat this giant aneurysm?

Isolation by
Distal and proximal embolization

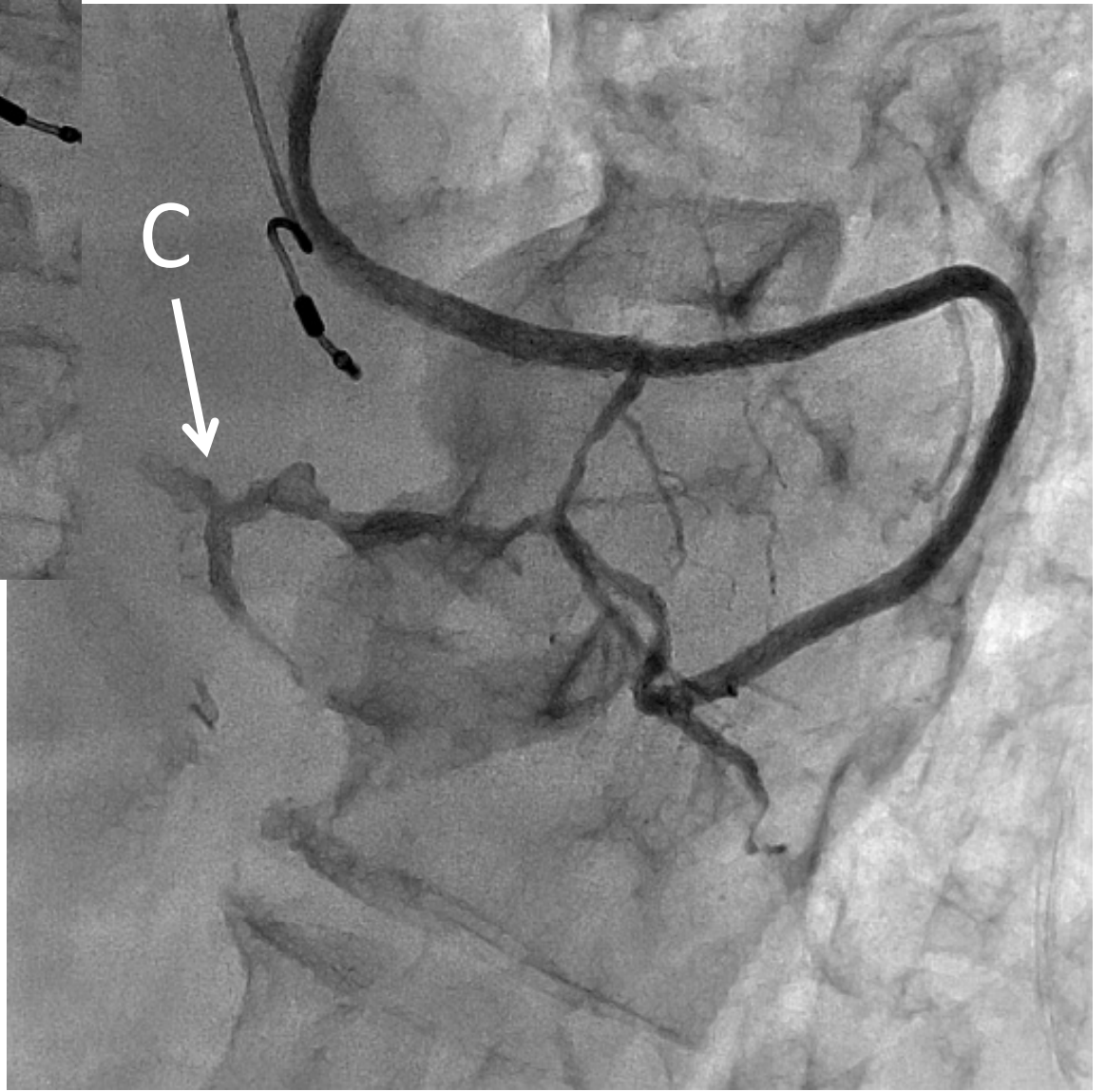


Packing

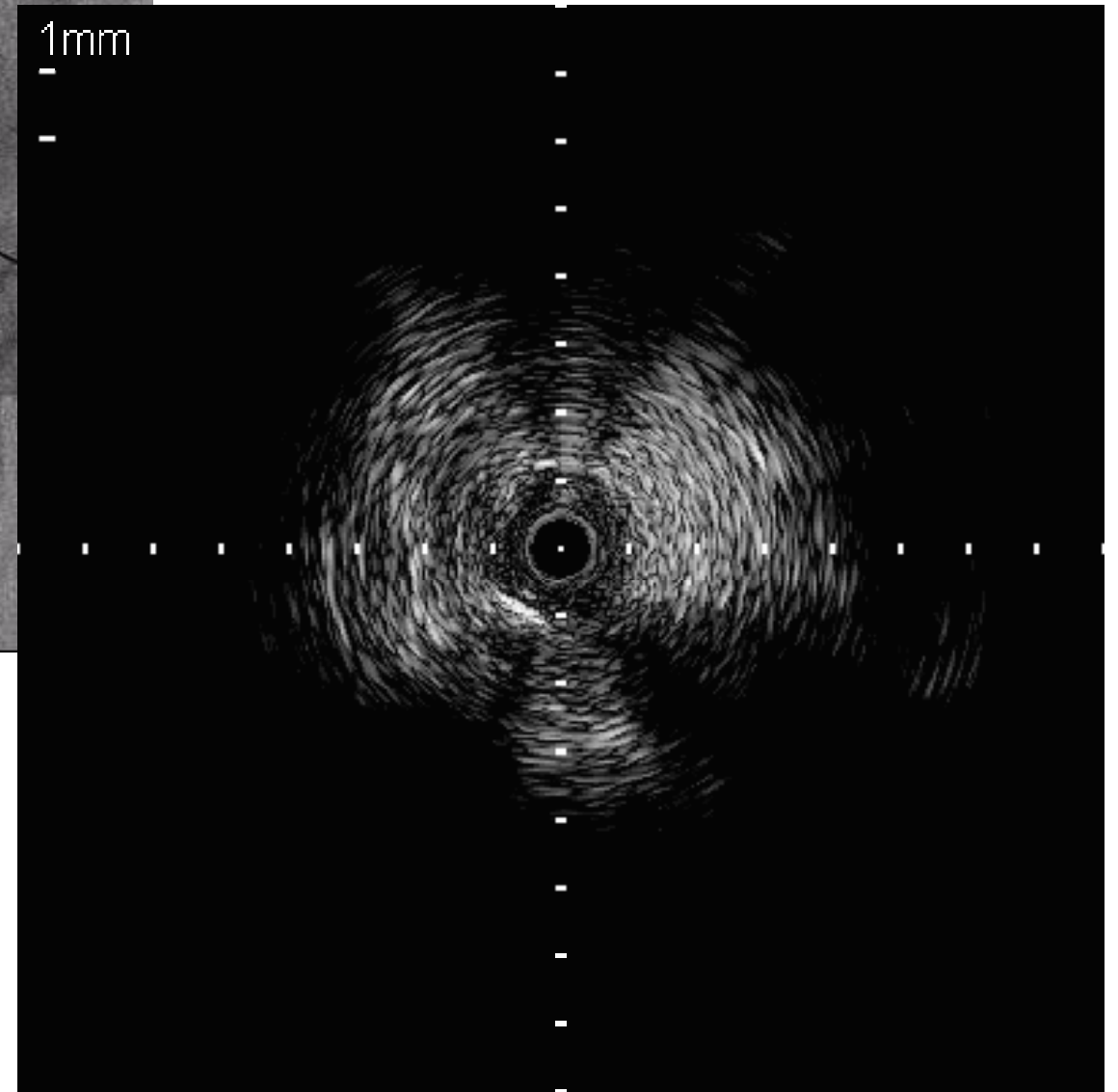
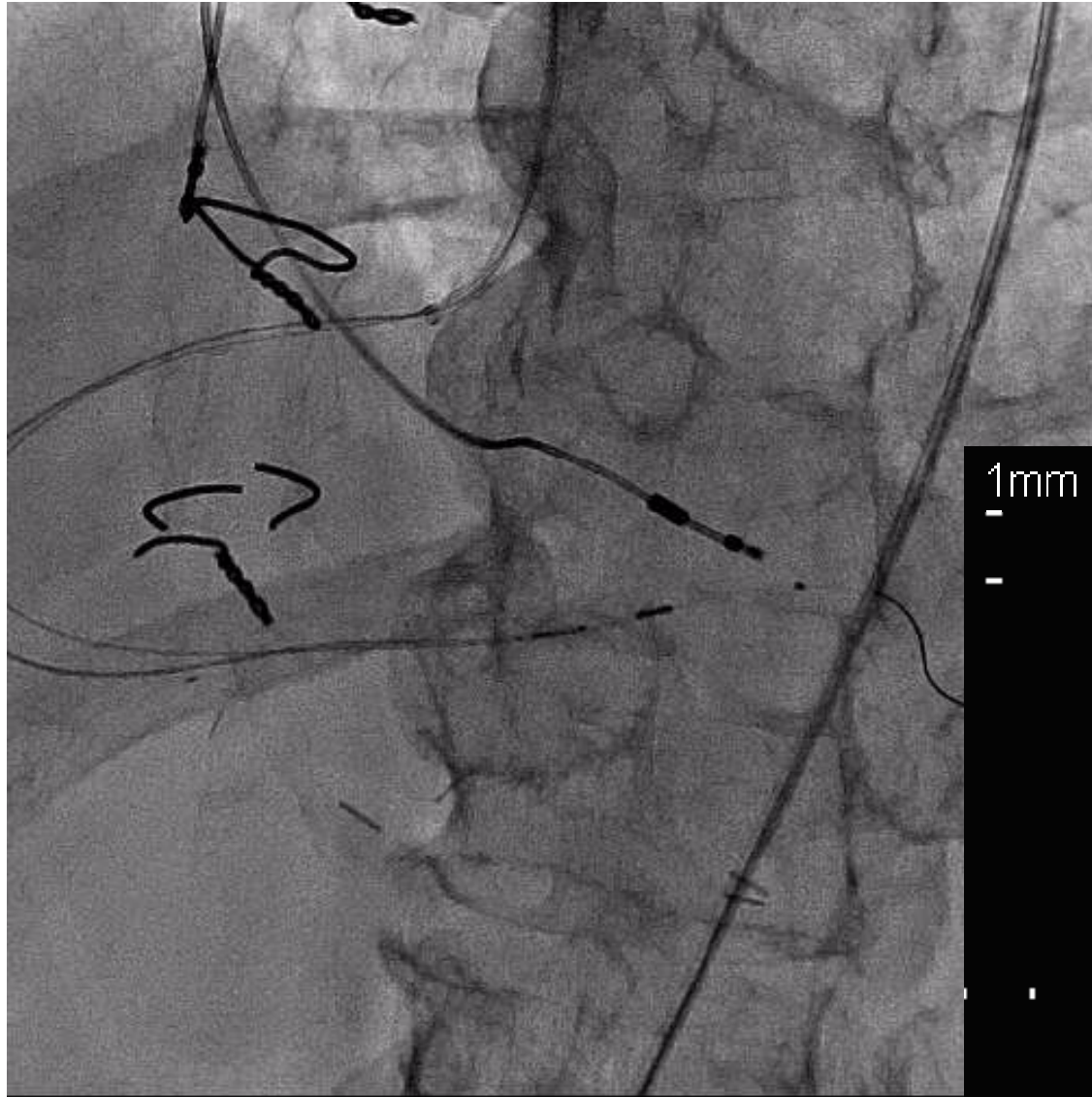




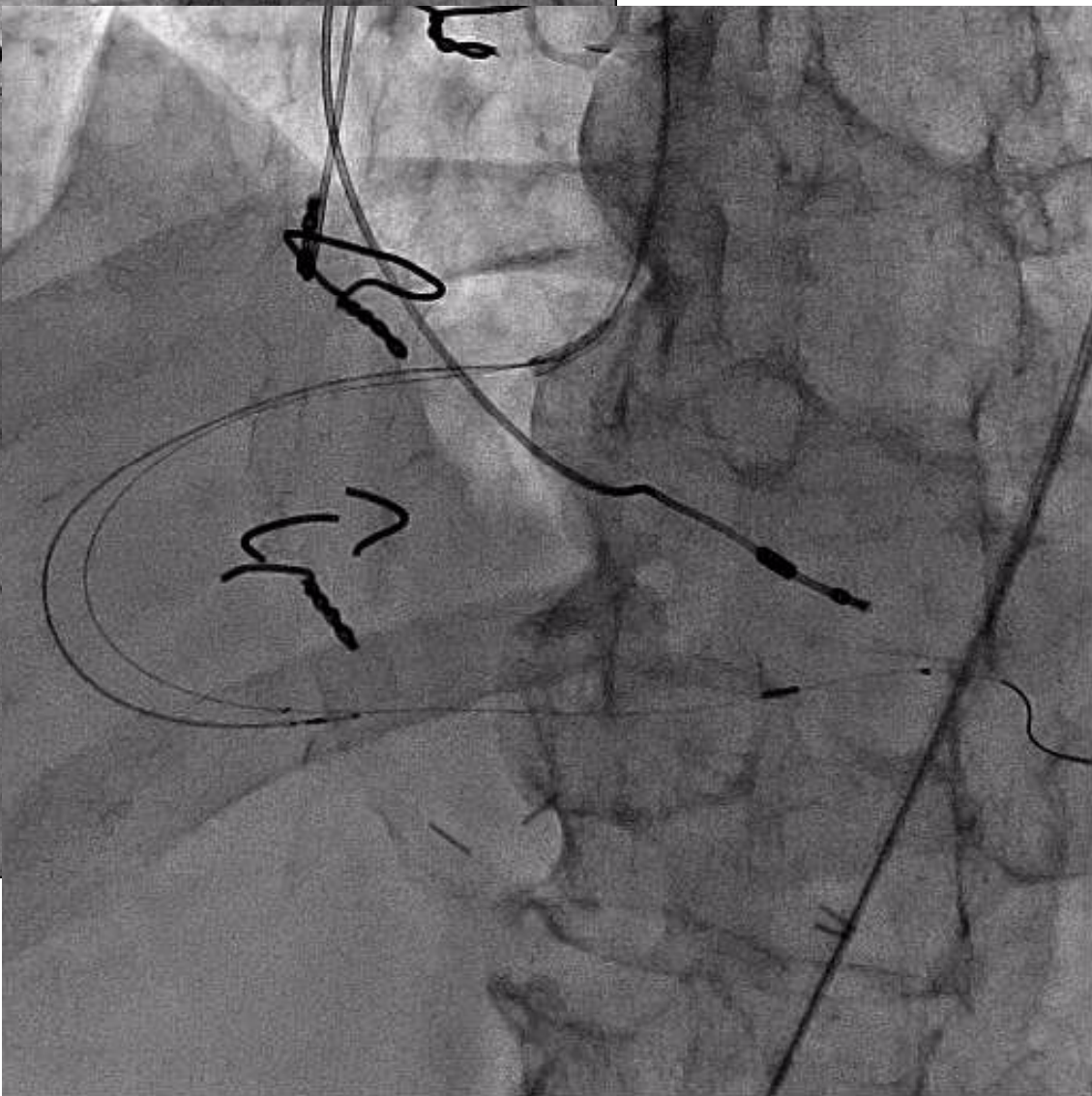
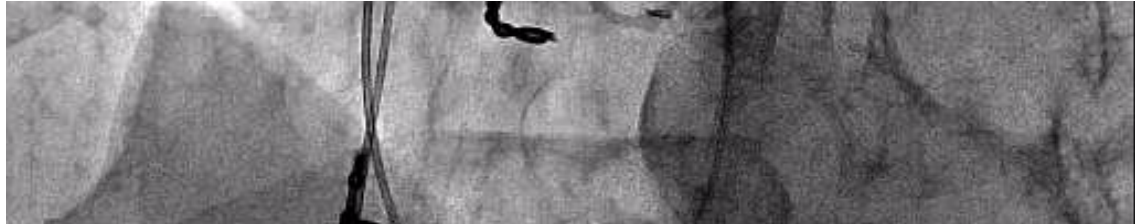
A: proximal end of aneurysm
B: distal end of aneurysm
C: bifurcation point of PD branch



Coronary angiogram was performed on 7/11/2012



2012/8/1
coil embolization was performed



Coil used in this case

CASHMERE coil

Provided by Codman JJ



Anchoring property

TORNADE coil

Provided by Medicos Hirata

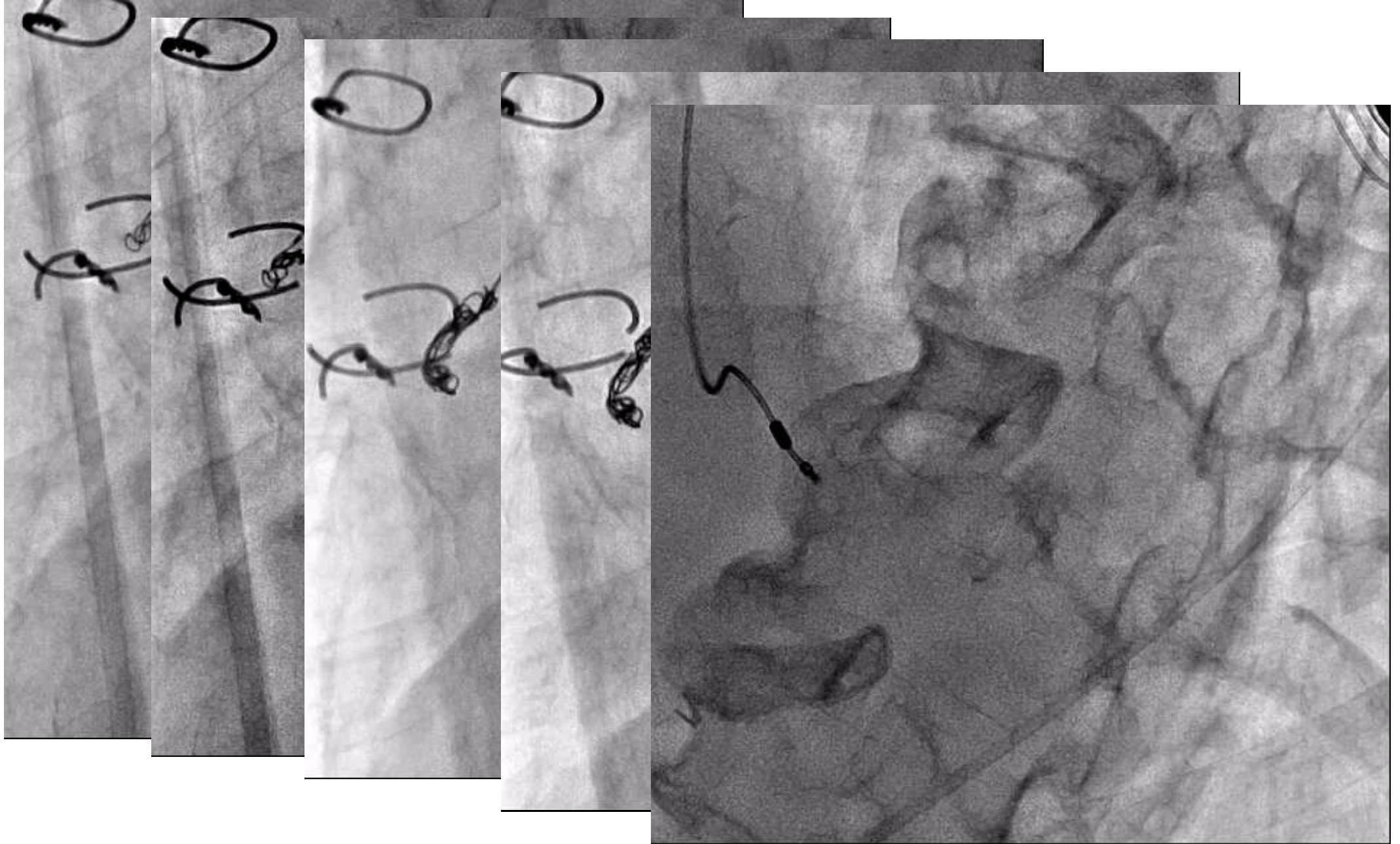


Strong thrombogenous property



Coil embolization to the outflow of coronary aneurysm

CASHMERE	5mm*12cm	1 piece
TORNADE	4mm*2mm	5 pieces

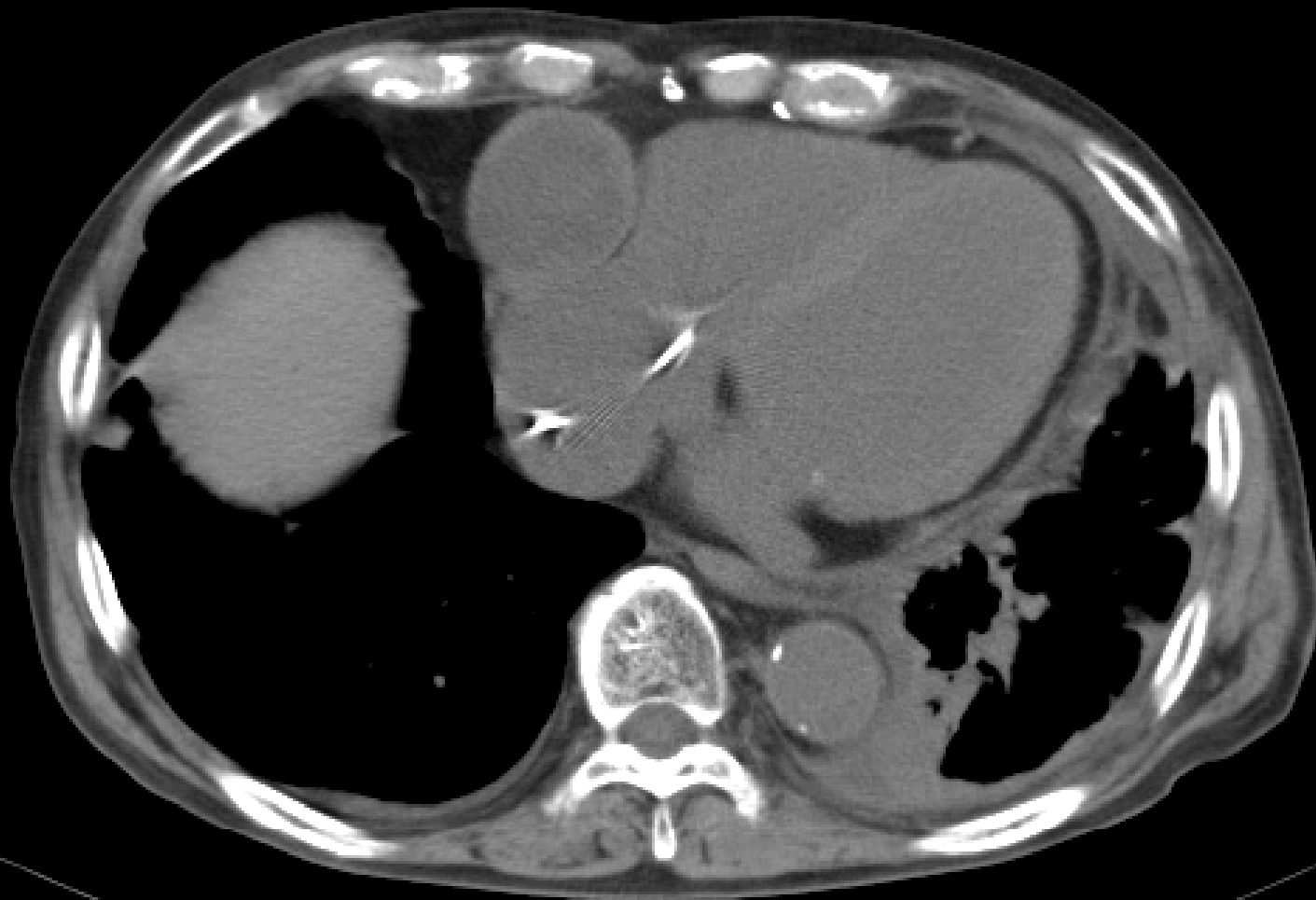


Coil embolization to the inflow of coronary aneurysm

The contrast media 20ml

CASHMERE	4mm*6cm	2 pieces
TORNADE	5mm*2mm	4 pieces

CAA diameter : 4.22*4.15cm

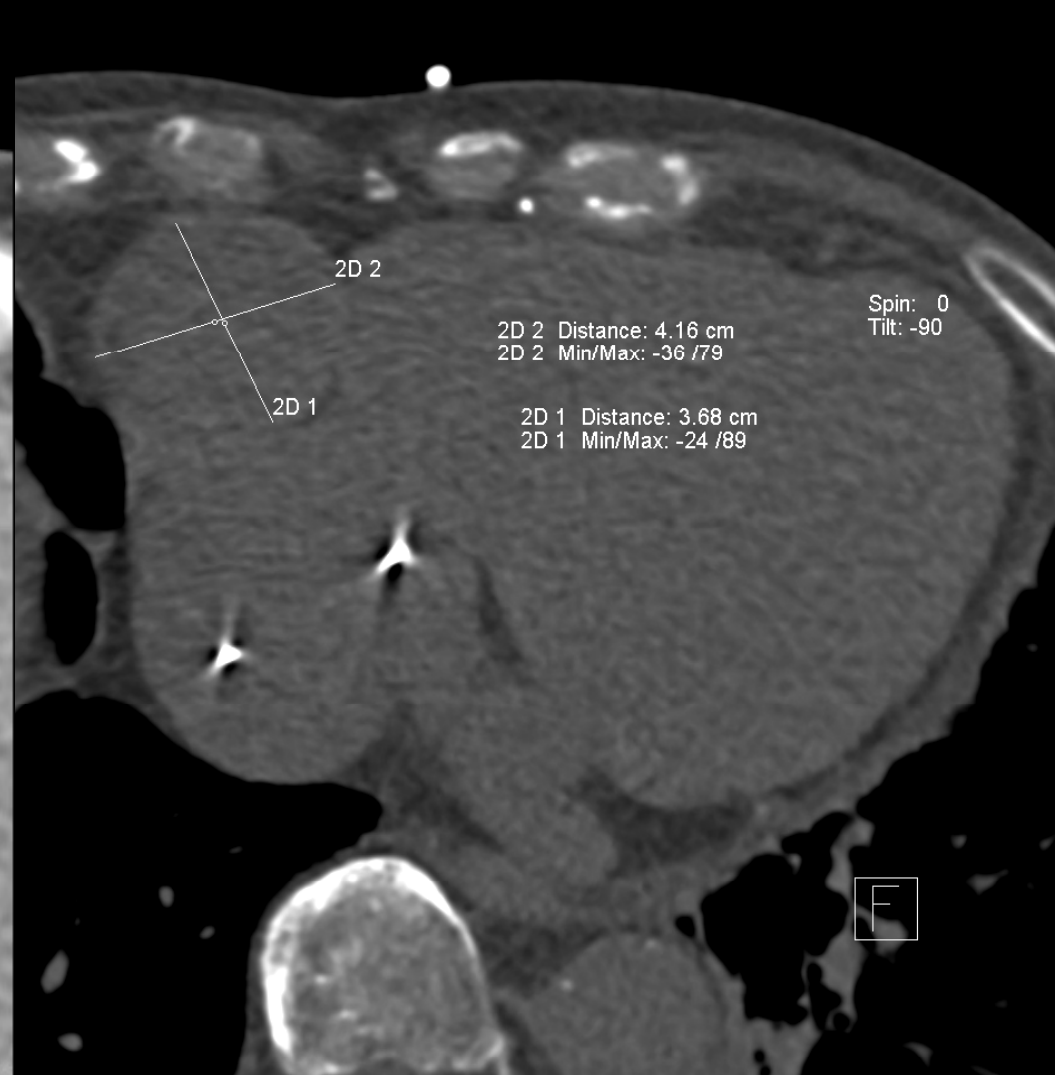


10/23/2012 MDCT



CAA size 4.39*3.91cm

11/22/2012



CAA size 4.16*3.68cm

3/13/2013

Summary

- 76 years old male who have multiple coronary aneurysm with unknown cause was reported.
- Distal and proximal coil embolization to isolate giant coronary aneurysm by IVUS guidance with minimum contrast was performed in this case.
- IVUS guidance is very useful to define the exact positioning of catheter, stent, coiling etc, and contribute to the reduction of contrast in such kind of case.