



Plugging The Pipe: A Cath Lab Nightmare

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Medical History

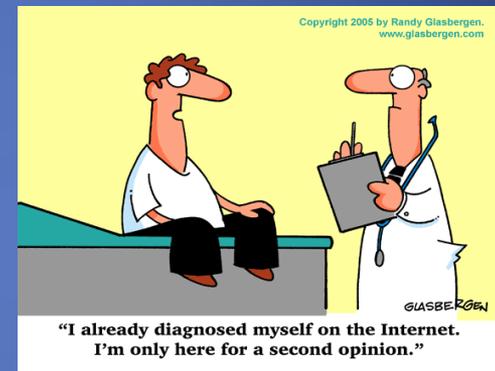
1. Age/Gender: 48/ Male

2. Medical History

- Chronic T2DM- OHA
- Dyslipidemia – Statin

3. CC and PI

- ❖ Bilateral lower limbs claudication
- ❖ Progressively worsened last 3 months
- ❖ Worse on the right lower limb



Physical Examination

1. Vital Signs- Stable
2. Systemic Examination- Unremarkable
3. Lower Limbs Examination
 - ✓ Warm
 - ✓ No trophic changes
 - ✓ No Wound
 - ✓ Peripheral pulses palpable

Investigations

- CBC- Hb=10.3g/dL
- RFT/LFT= Normal
- Echo Examination
 - LVEF=60-65%
 - No RWMA



ABI

Ankle/Brachial Index (ABI) Results

(Note: Use the higher arm pressure for both the left and right ABI calculations.)

Ankle/Brachial Index Interpretation*

- 0.96 or Above - Generally Normal
- 0.81 - 0.95 - Mild Disease
- 0.51 - 0.81 - Moderate Disease
- 0.31 - 0.50 - Moderate to Severe Disease
- 0.30 or below - Severe Disease

* Techniques in Noninvasive Vascular Diagnosis: Protocol and Procedure Guideline Manual, R.J. Deagle BA, FVT, Academy Medical Systems, 1999, p. 124

Right ABI

$$\frac{\text{Right Ankle Pressure}}{\text{Highest Arm Pressure}} = \frac{\text{mmHg}}{\text{mmHg}} = \underline{\hspace{2cm}}$$

0.64

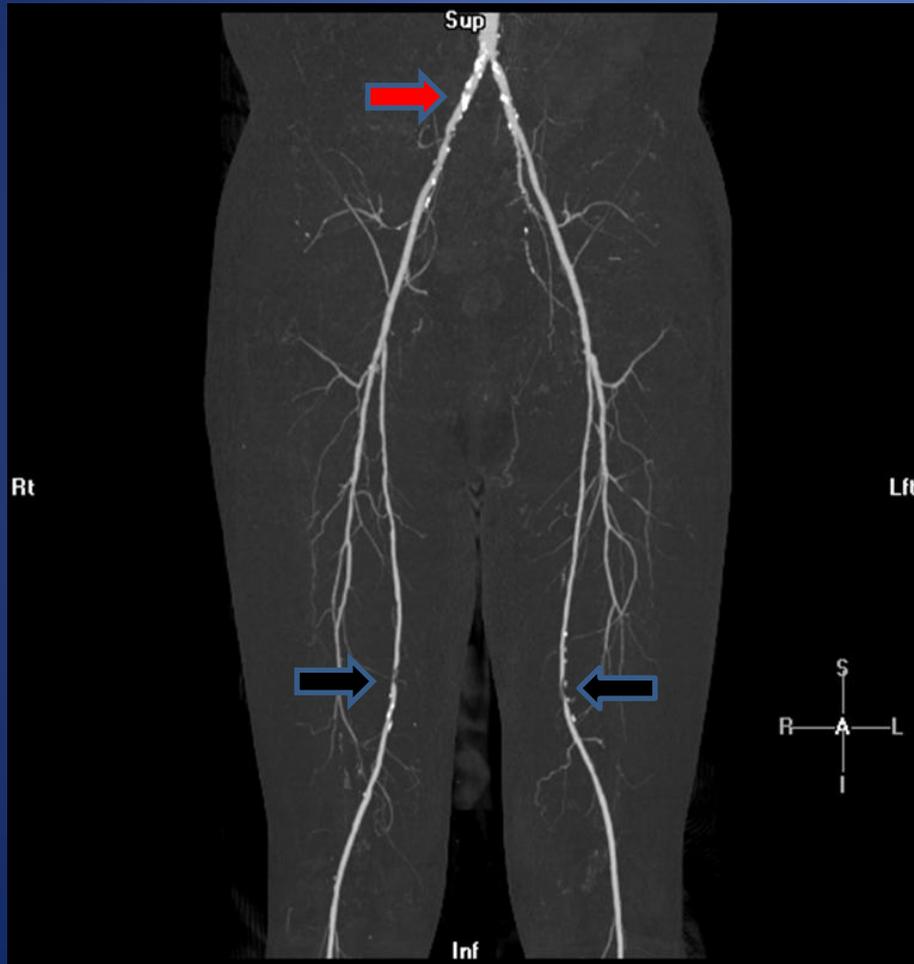
Left ABI

$$\frac{\text{Left Ankle Pressure}}{\text{Highest Arm Pressure}} = \frac{\text{mmHg}}{\text{mmHg}} = \underline{\hspace{2cm}}$$

0.72

$$\text{Example} = \frac{\text{Ankle Pressure}}{\text{Brachial Pressure}} = \frac{125 \text{ mmHg}}{114 \text{ mmHg}} = \underline{1.09}$$

Lower Limb CTA



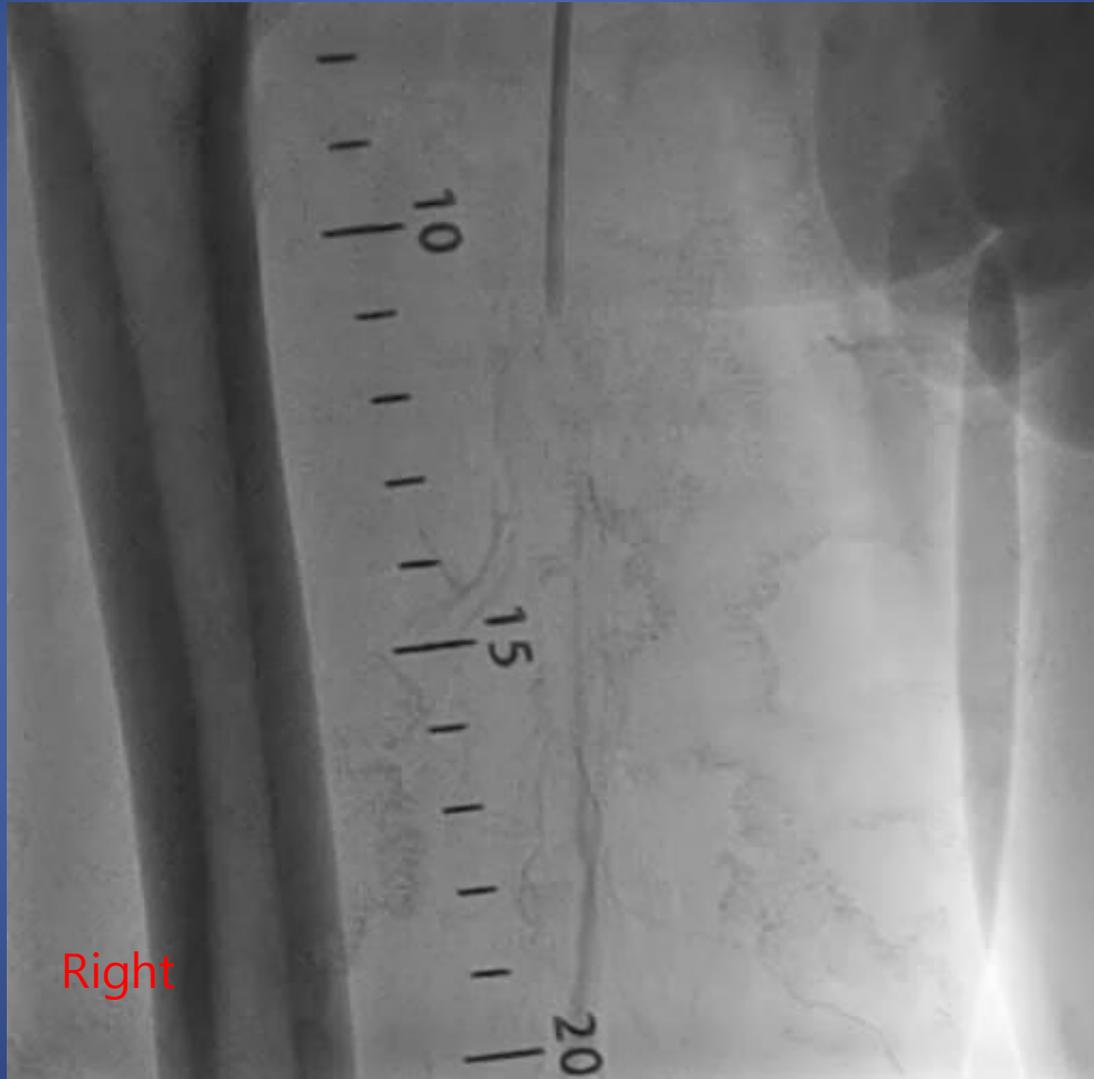
What Would Be The Strategy?

1. Approach : Contralateral Access

2. Pre-Intervention Pharmacology:

- DAPT- Aspirin, Plavix
- Antithrombotic- LMWH(1mg/Kg) ± reduced dose of UFH (50 IU/Kg) during procedure
 - ❖ Target ACT= 250-350 secs

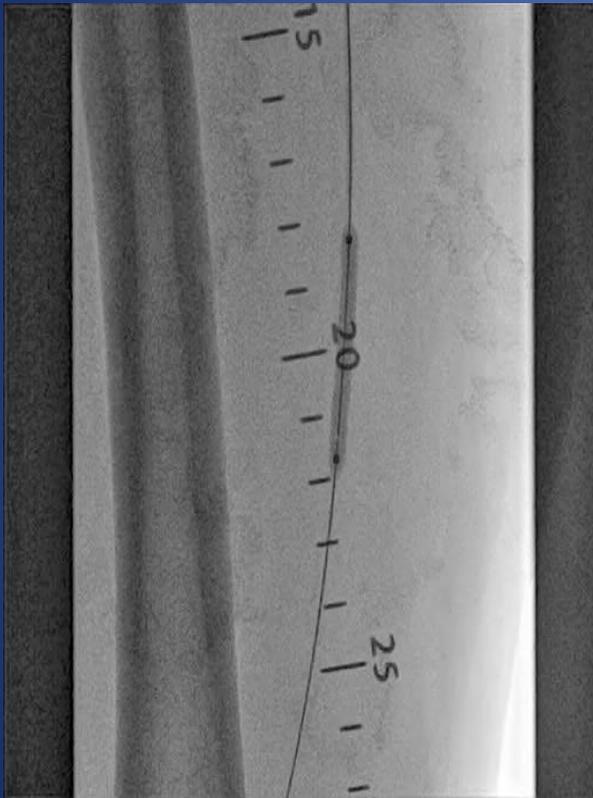
Baseline Angiography



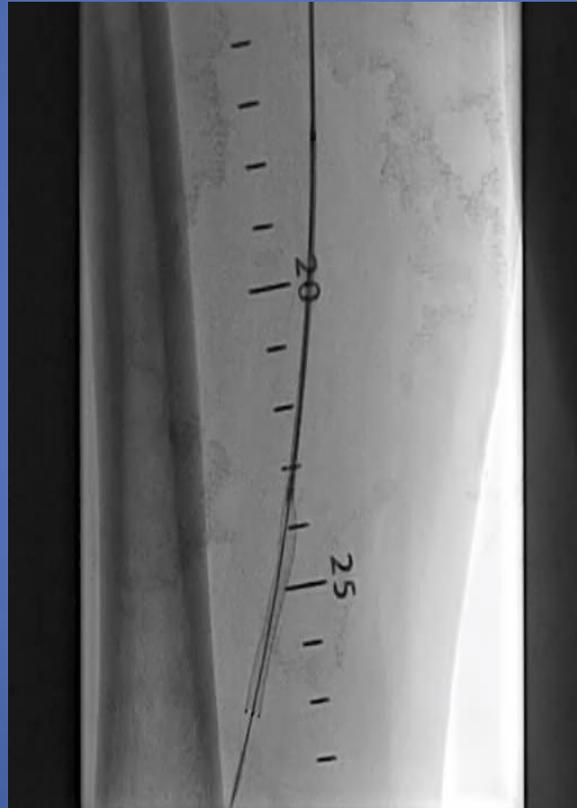
Terumo 035 wire
5F MPA

Right

Ipsilateral Intraluminal Wiring, Ballooning, and Stenting



Terumo 035 wire
Powerflex 4.0x40mm



Smart 6.0x 100mm



Mustang 5.0x100mm 16atm

Proximal Ballooning and Completion Angiography

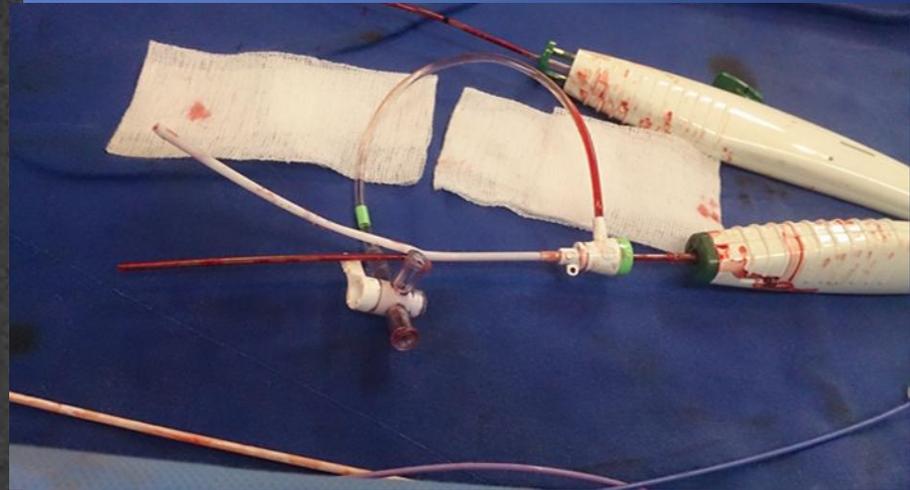
Mustang 5 x100mm



Alamak! What Happened?



Wire re-insertion!!!



6F Exoseal

Prolonged Balloon Tamponade and Manual Compression



Powerflex 4.0x 40mm

Mustang 5.0x 100mm

DSA- Stop or Do Further?



Stop or Do Further?

CIA Angioplasty

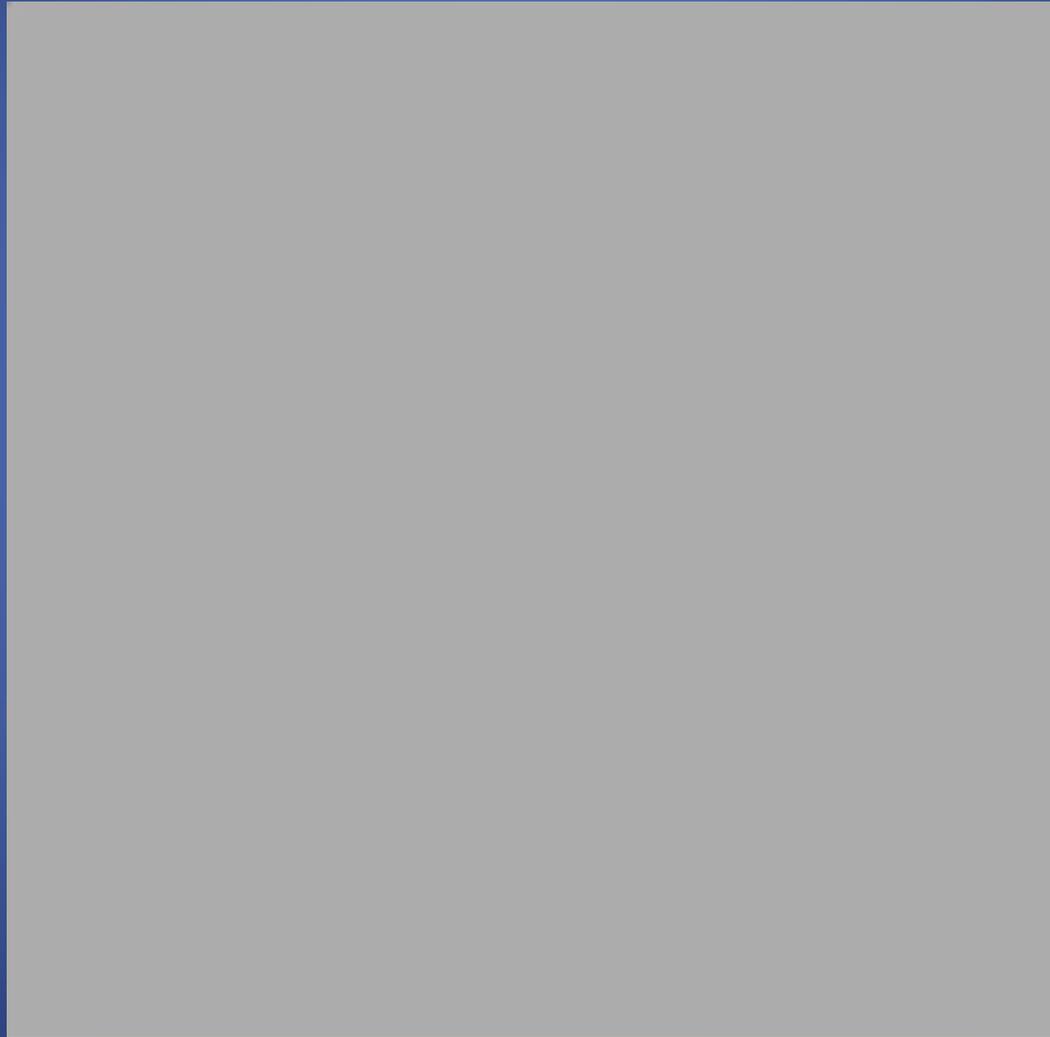


Admiral 7.0x40mm

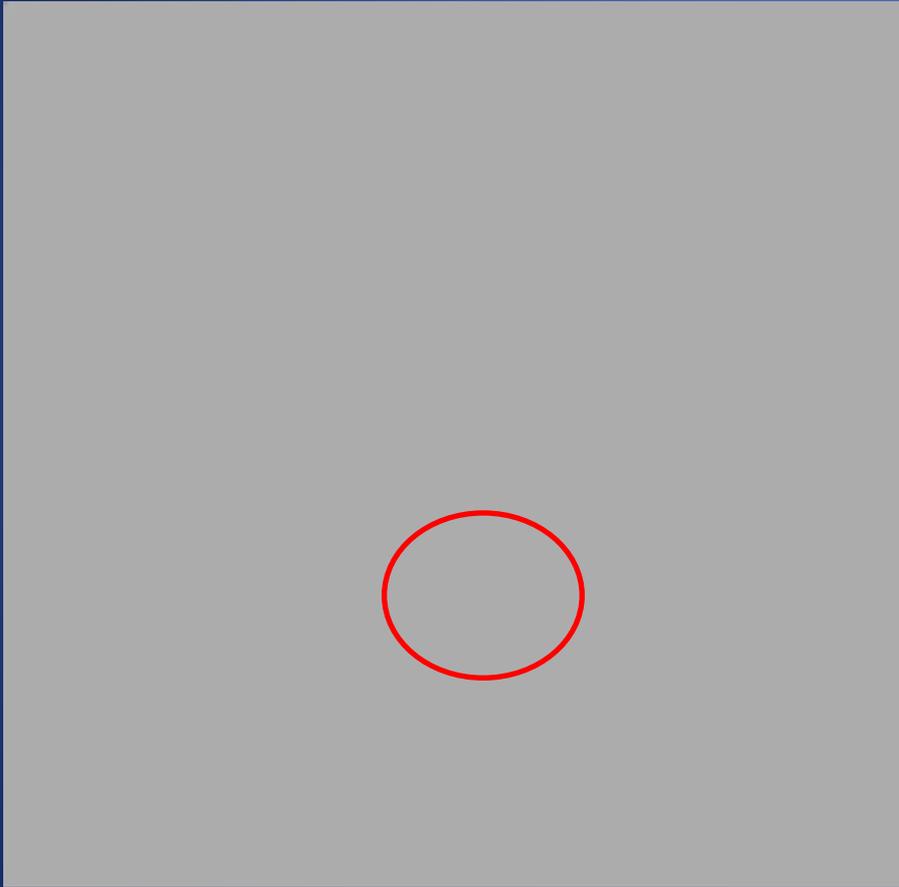


Scuba stent 7.0x55mm

Post Angioplasty Angiogram



Work on **Access** Site Again!



Plugging The pipe!!

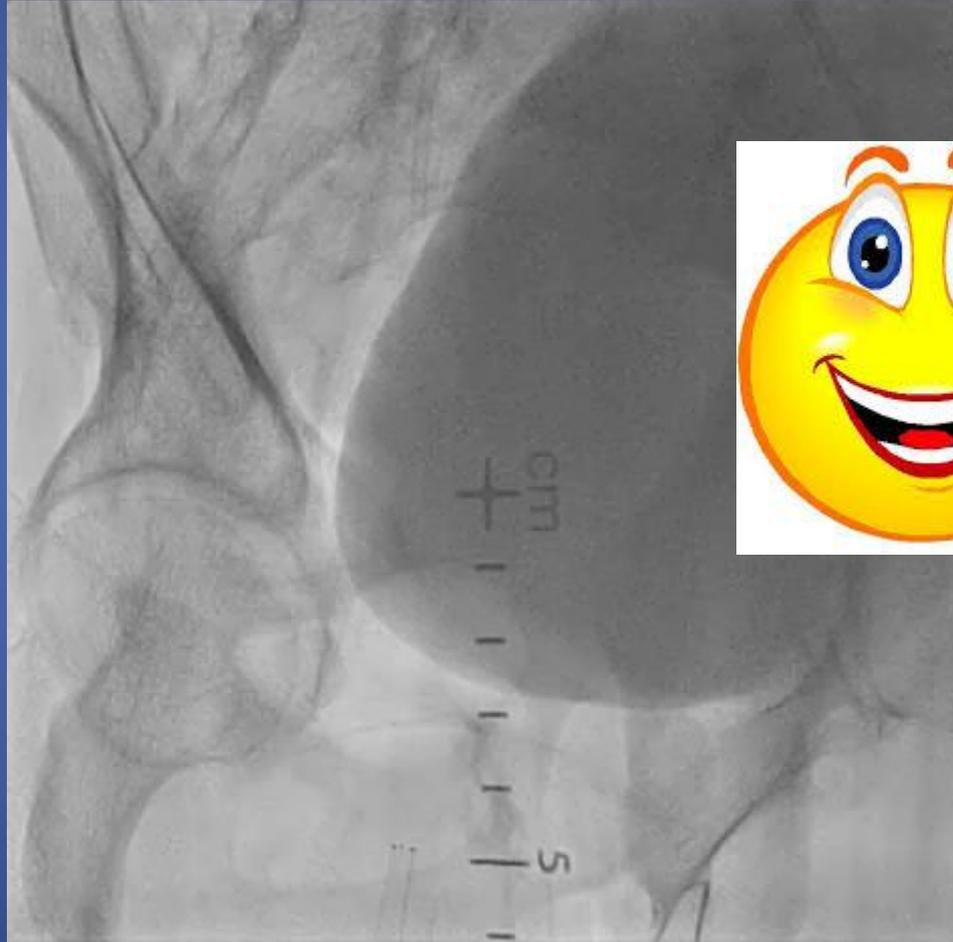
Prolonged Balloon Tamponade and Stenting



Mustang balloon 5.0 x100mm

Smart stent 6.0 x 100mm

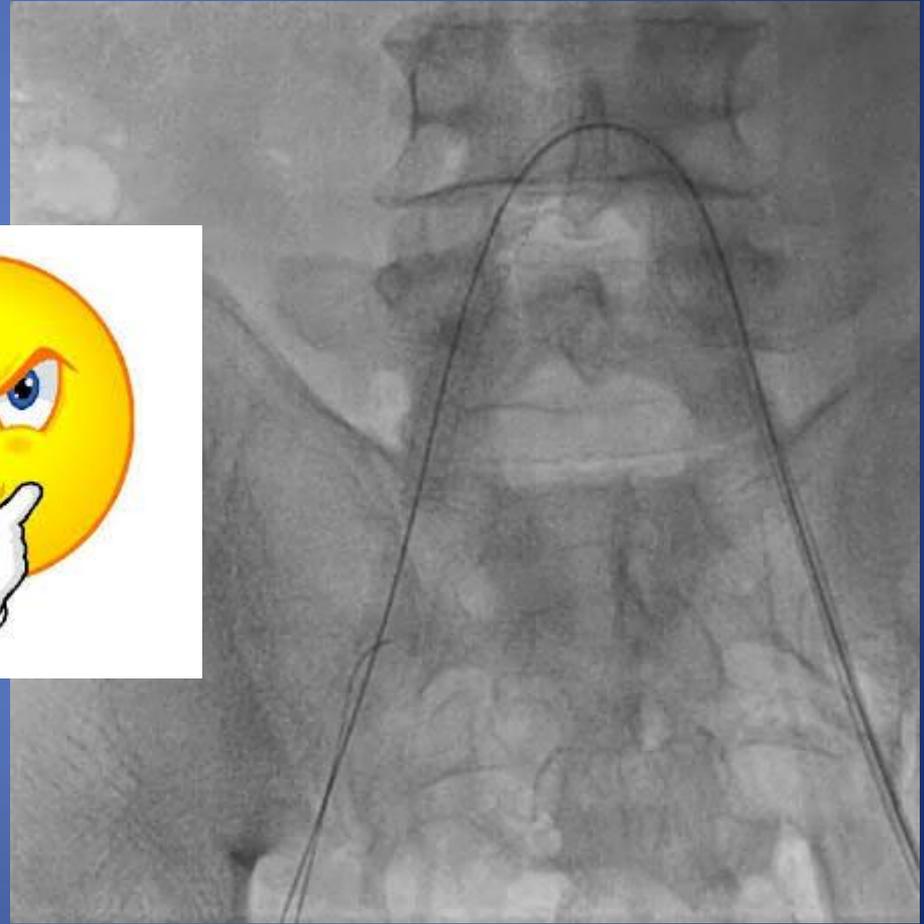
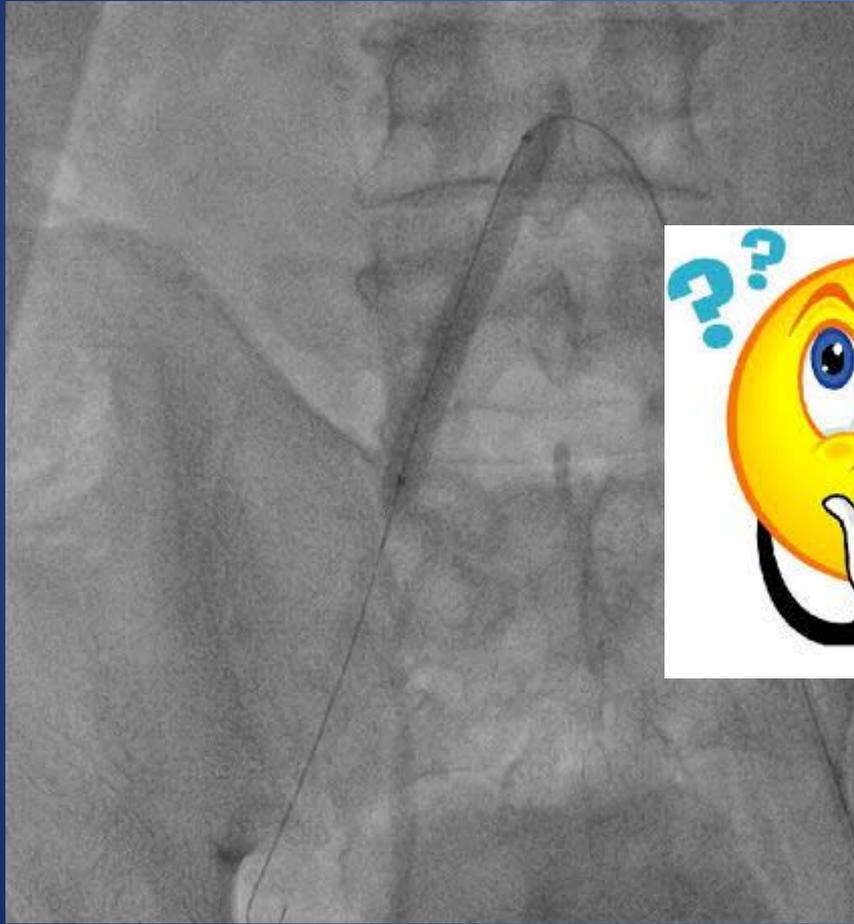
Mission Accomplished. Really!



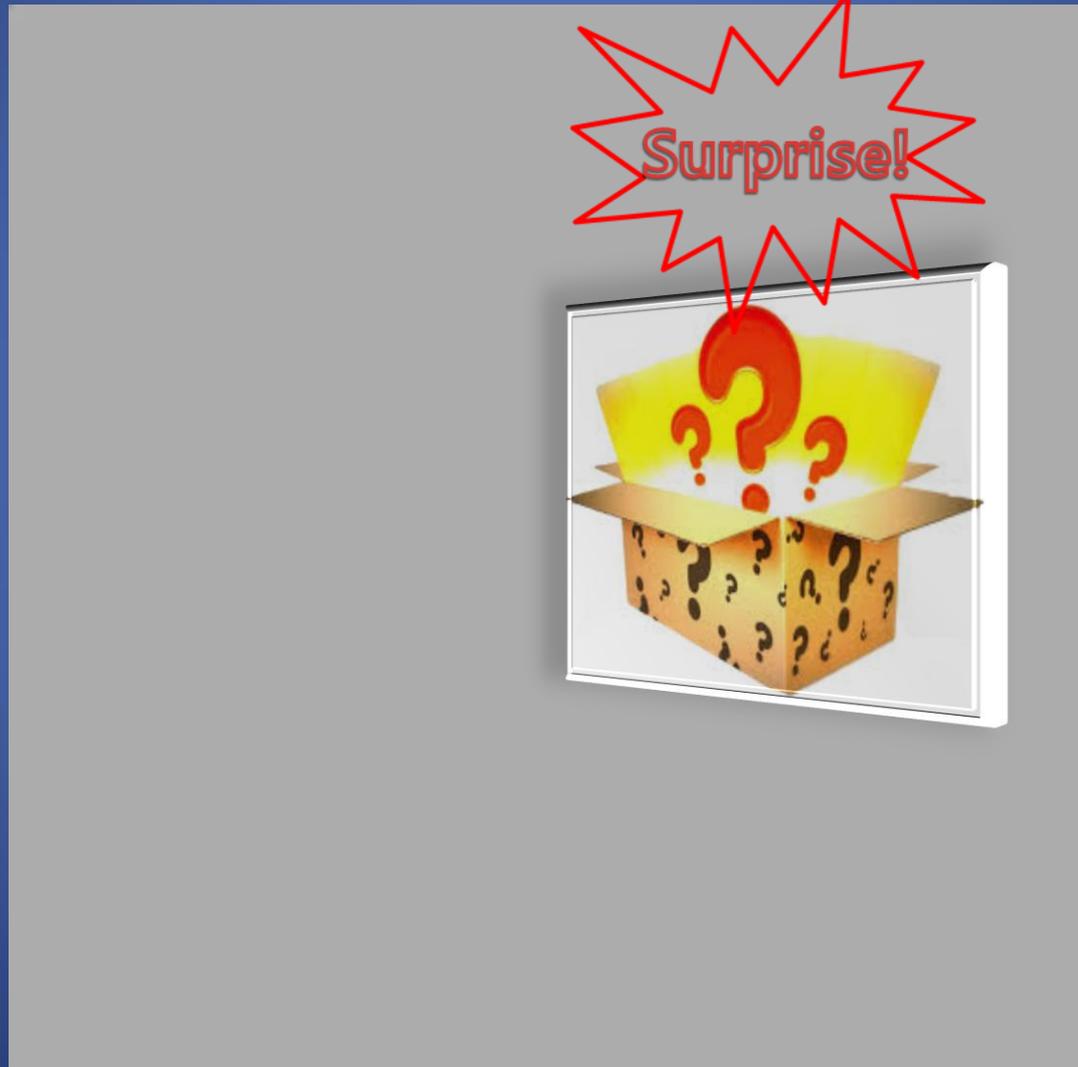
Life is hard
Fight for happy!



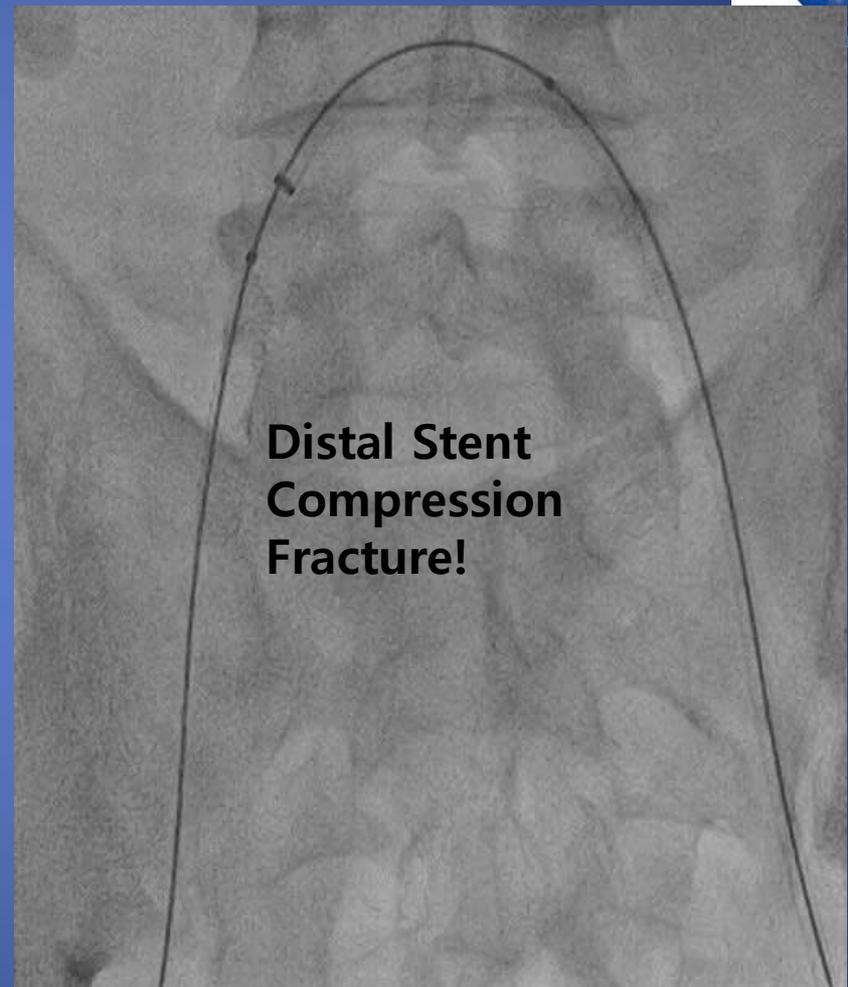
Unsatisfactory! Better Safe Than
Sorry.....Wait!!...Do More...



Time to Finish....

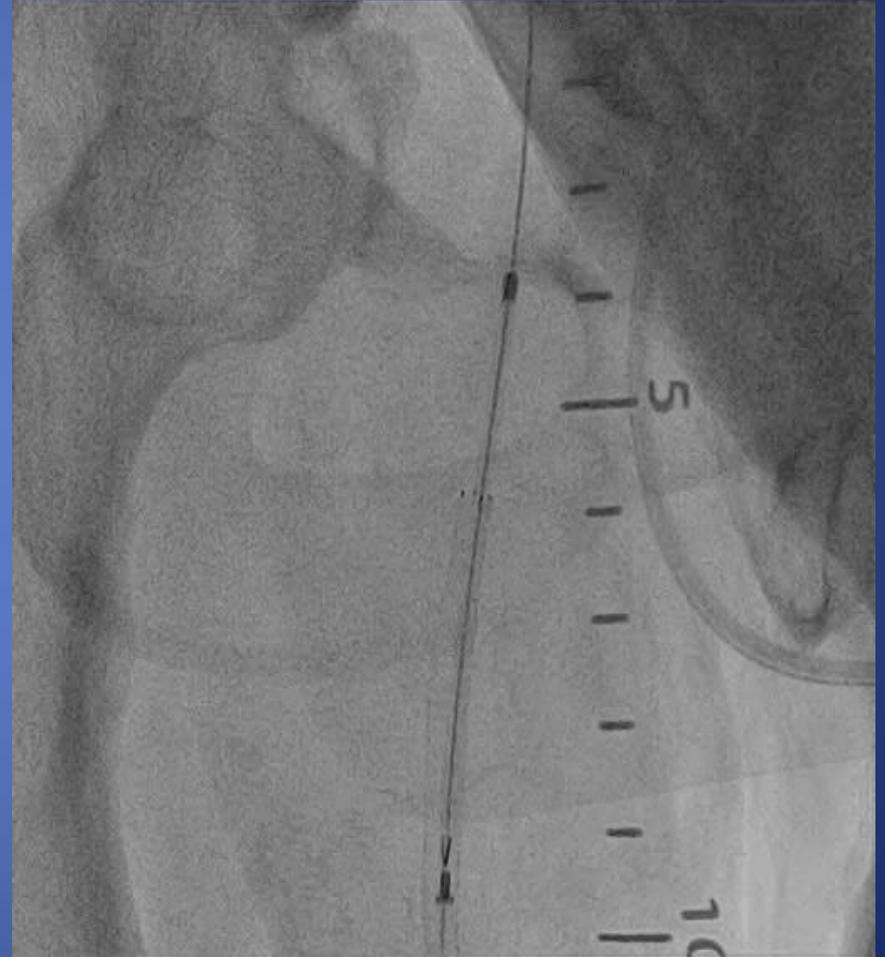
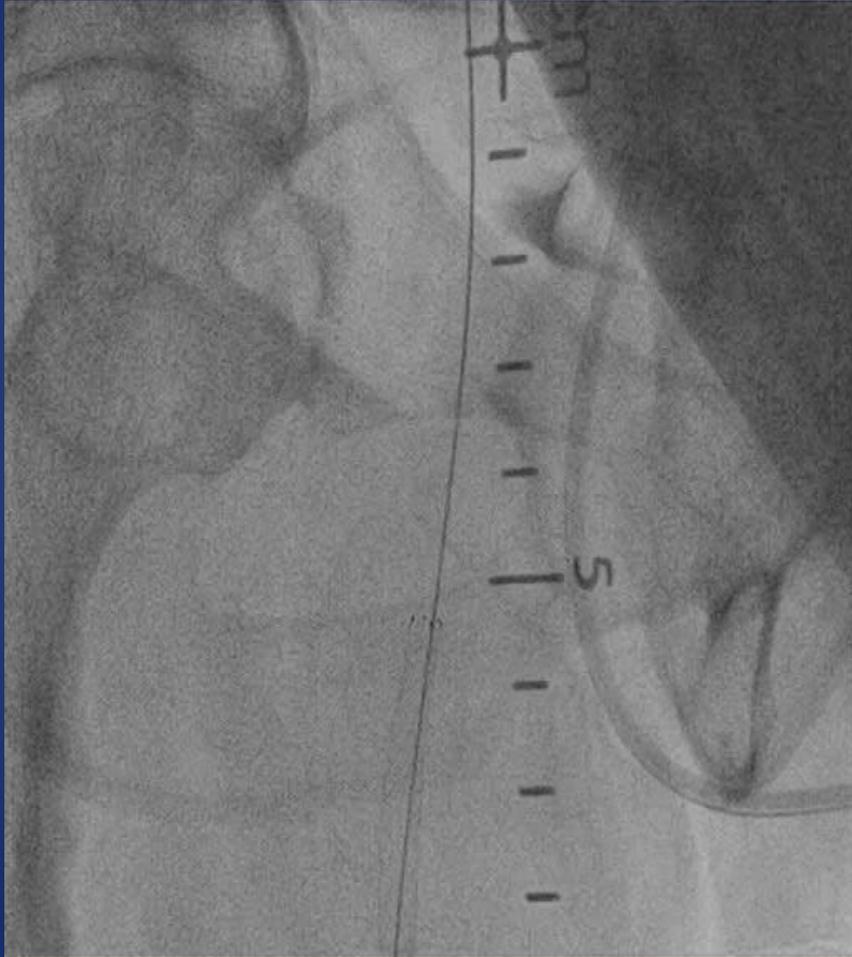


Rewiring, Difficult To Pass



Delivery of self-expanding Graft stent; S&G (Korea)

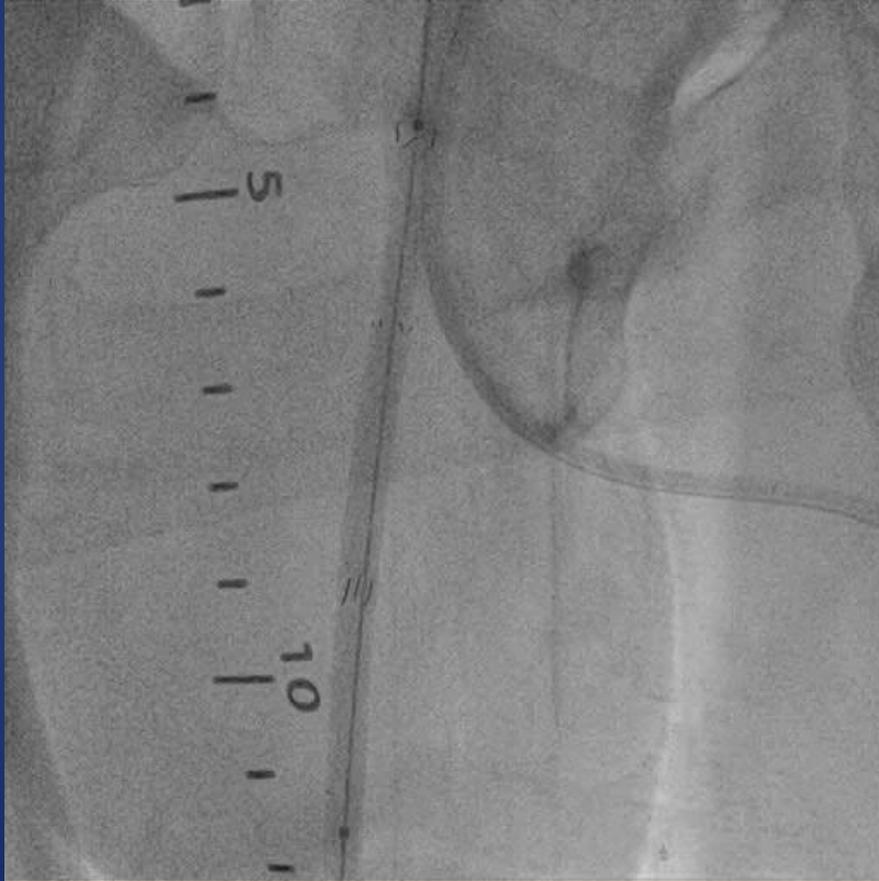
Graft Stenting



Geographical Miss!! Should be careful!!

Post ballooning

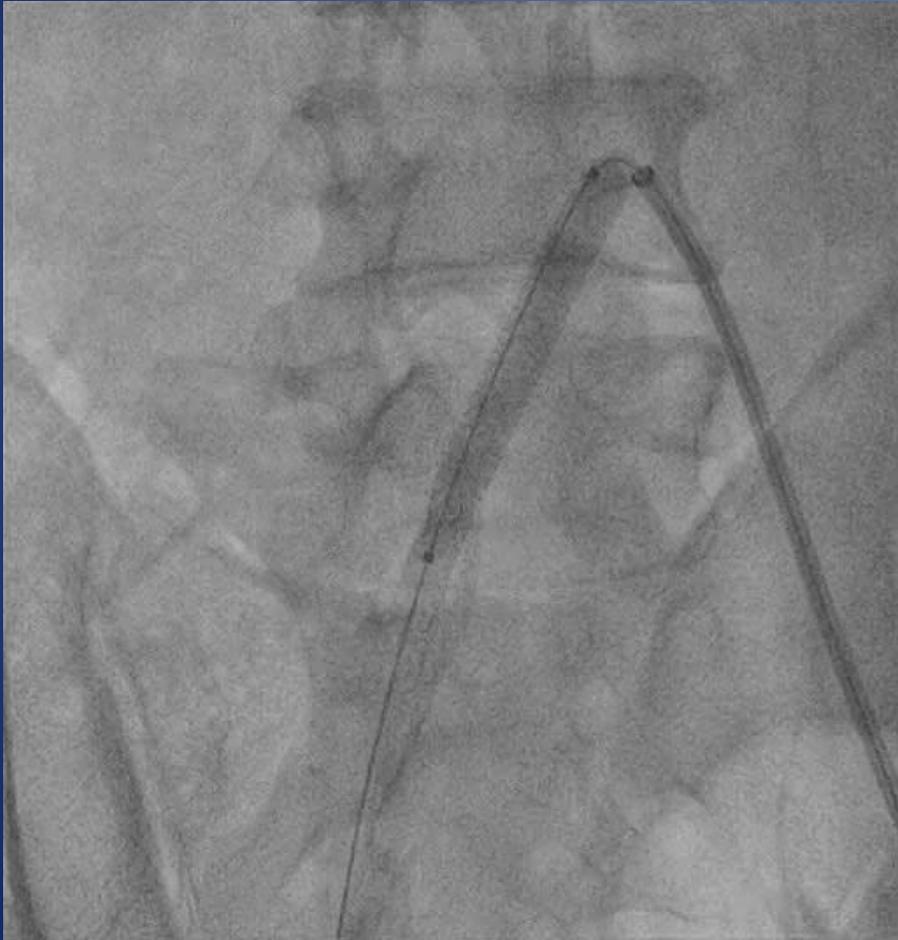
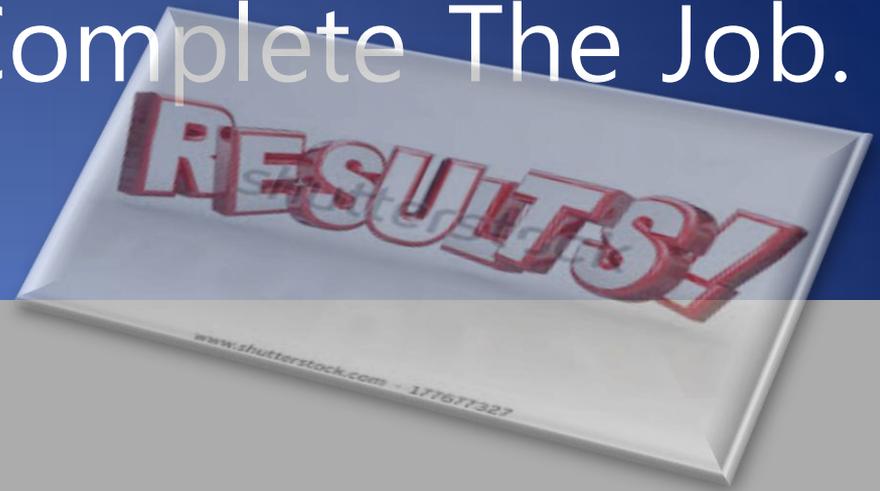
What happened next?



Mustang 5.0x100mm

Another trouble!!

Too long already...Complete The Job.



Scuba stent 8.0 x55mm



Foods for Thought!



1. What are the steps to be taken to prevent such uncommon complication?
 - 1) Closure device-related perforation
 - 2) Iliac stent deformity and crushing
 - 3) Deep femoral artery loss due to geographic miss by a stent graft
2. Surgical vs. Endovascular solution in in this situation?

What Have We Learn From This Experience?

- Prevention is the **Best Medicine**.
- Clear strategy in performing endovascular intervention.....take one at a time!
- Clinical decision making is an art and you need to weigh pros and cons of each decision
- Be ready with covered stent in your cath lab

Perfection Is Not Attainable! But If We Chase Perfection,
We Can Catch Excellent!



Thank you for your attention!!

Korea University Guro Hospital

