The End Is Only the Beginning of Our Nightmares: Managing a Rare Complication of Percutaneous Closure Device

Chan Ho Thum, Jayakhanthan Kolanthaivelu

National Heart Institute, Malaysia

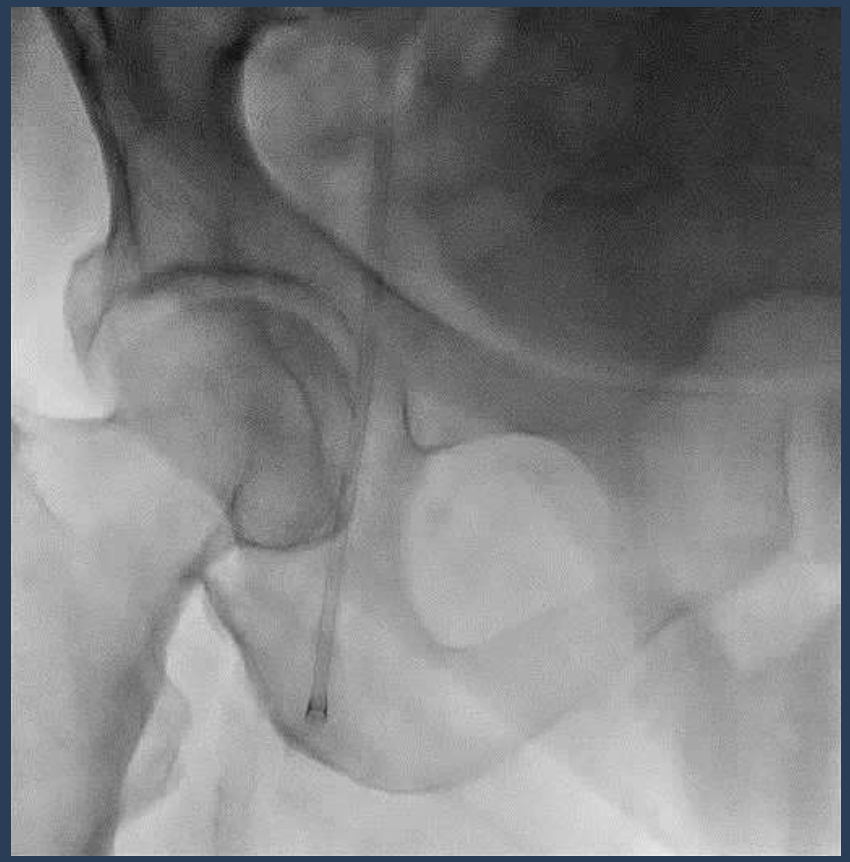
Disclosure

- None

Brief Clinical History

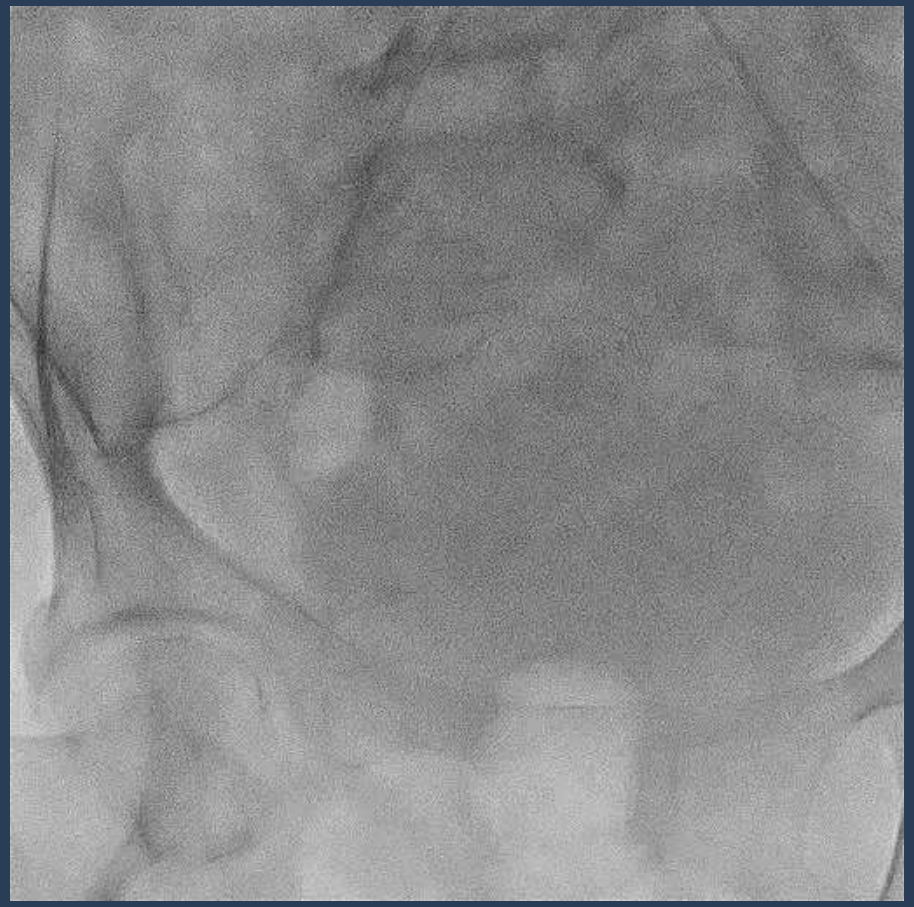
- Mdm TAA, 75 year hypertensive old lady,
- ADL independent
- History of late presentation of myocardial infarction.
- We successfully performed a challenging angioplasty to the RCA via the Right Femoral Route

- Angiogram of the right lower limb revealed no significant femoral vessel disease and the puncture site was not situated near any bifurcation of the vessels



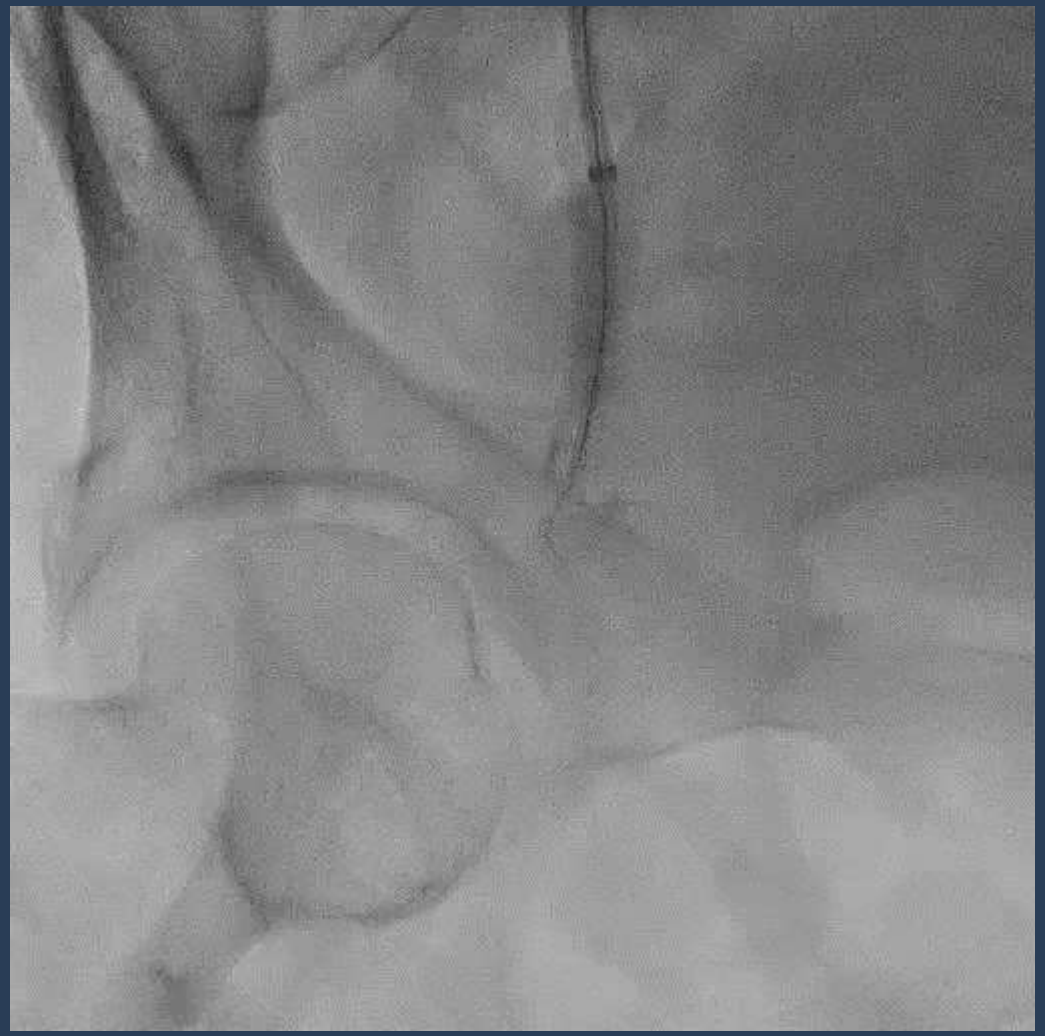
- We decided for percutaneous closure with a Proglide device.
- Assessment post closure revealed absent femoral pulse
- Peripheries of the affected limb were cool and pulse absent distally.
- The patient however remained pain free and asymptomatic.
- Urgent bedside doppler ultrasound revealed absent flow across right Common Femoral artery
- Initial suspicion was acute thrombus formation at the femoral artery

- A repeat angiogram shot from the left side confirmed no flow from common femoral artery

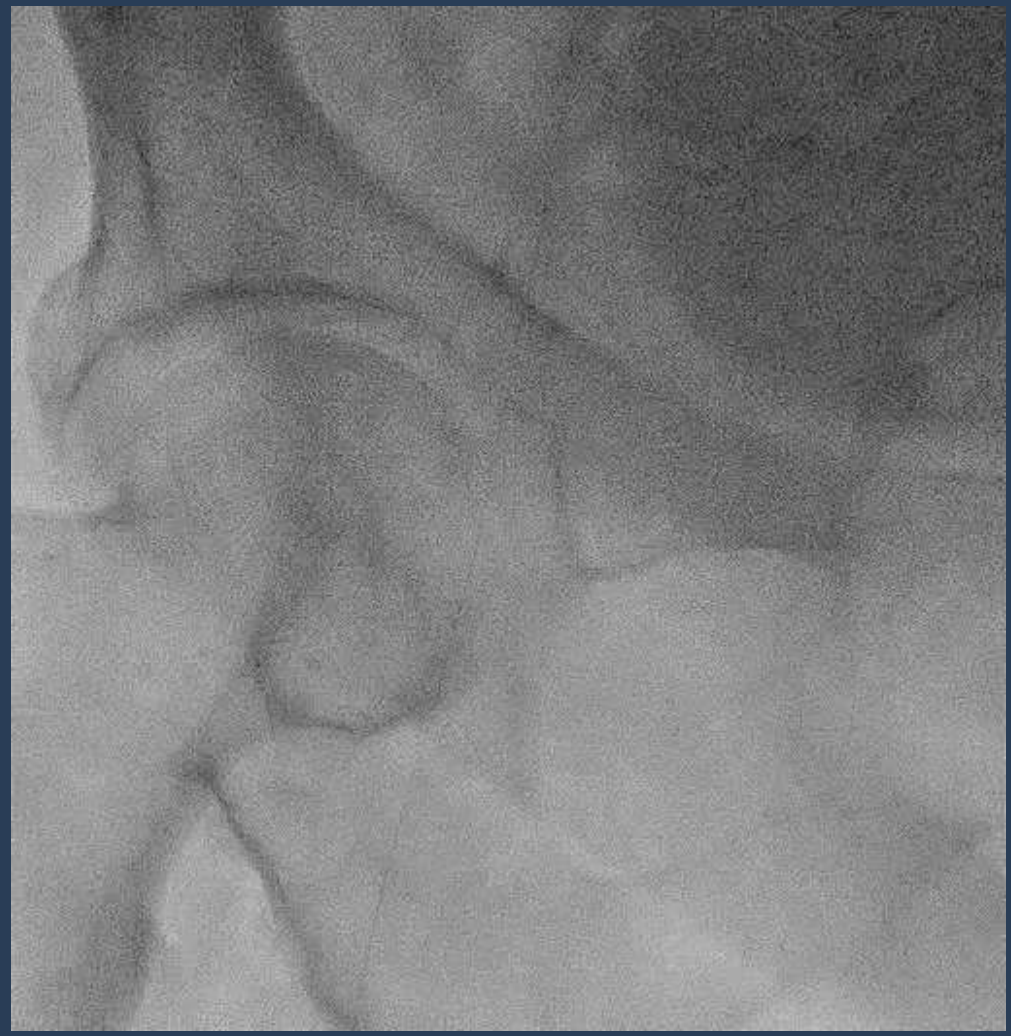


Procedure

- Via access from the left femoral artery, the initial sheath was replaced with a Slender 7 sheath.
- A JR 3.5, 5F guiding catheter was introduced via a Crossover Sheath to the Right Femoral Artery
- Multiple attempts to cross the lesion failed. Wire used included Runthrough Floppy, Fielder XT and Command wire.
- Finally we crossed and minimal flow was established a "puckered" lesion

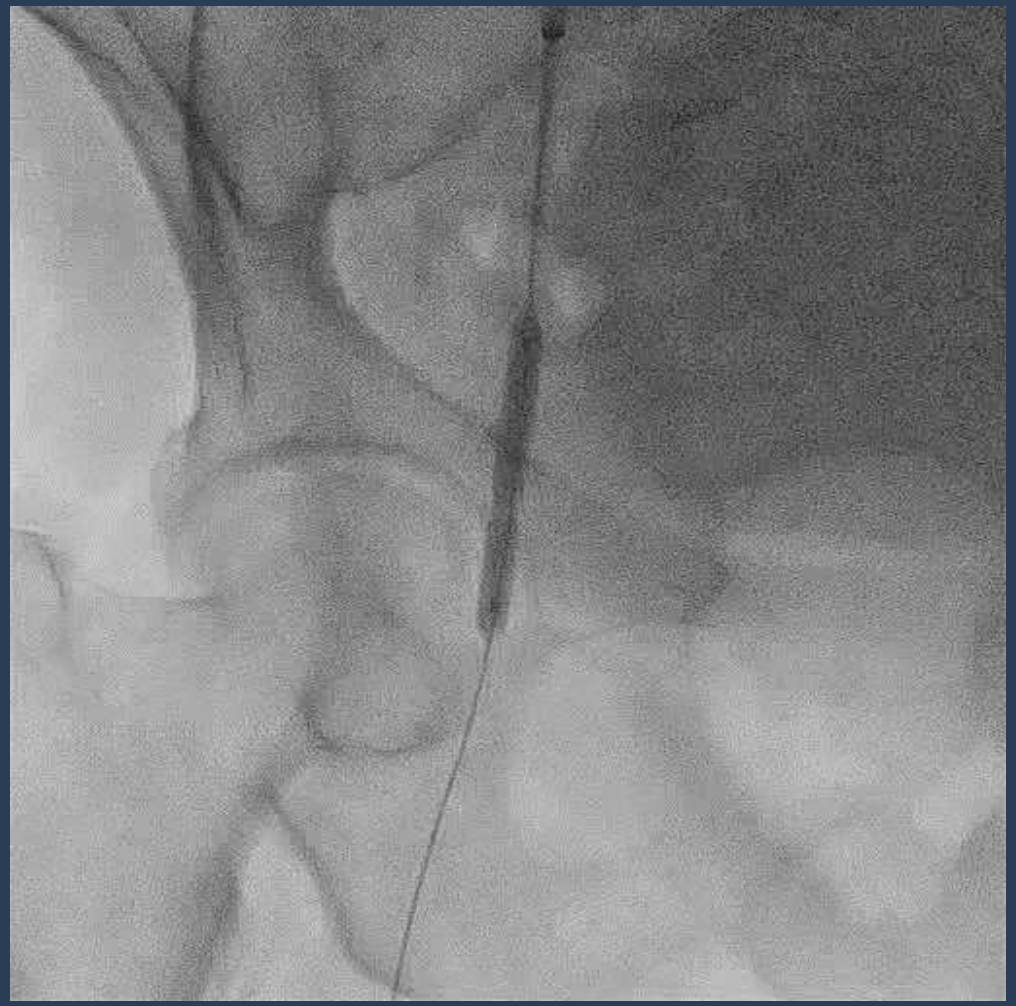


Difficult wiring



Puckered lesion

- The initial suspicion of thrombus was refuted when there was no thrombus aspirated via Export Suction Catheter.
- The lesion was predilated with a Ryurei 3.0/20mm semi compliant balloon at 20 atm
- A leak was noted after dilation which we presumed was the origin of the puncture site



Predilation of the lesion

Postdilation

- We initially planned to use a covered stent but deferred as we do not have an appropriate length stent at that moment
- The patient was also planned for a staged PCI Left system with limited vascular access.
- Hence we decided for a prolonged balloon inflation with a PTA OTW Mustang 5.0mm/40mm/135 cm at 6-8 atm for 8 minutes for a total time of 40 minutes.
- The leak gradually sealed off

Final DSA

- She was sent to the CCU for monitoring
- Her Hemoglobin remained static and stable throughout admission.
- We proceeded with PCI to her Left Main and LAD the following week via the Left femoral artery.

Conclusion

- Although percutaneous closure is an effective method in femoral access care, we must be prepared of its potentially rare but dangerous complications that may arise and manage them without delay.
- It is a good practice to assess the femoral pulse and distal pulse after usage of such devices.
- Fortunately, vascular surgery can still be prevented with prompt intervention from Peripheral Vascular Intervention Team.