The Occluded Stent and the Wheelchair

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Disclosures

Y. Gouëffic reports:

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Patient history

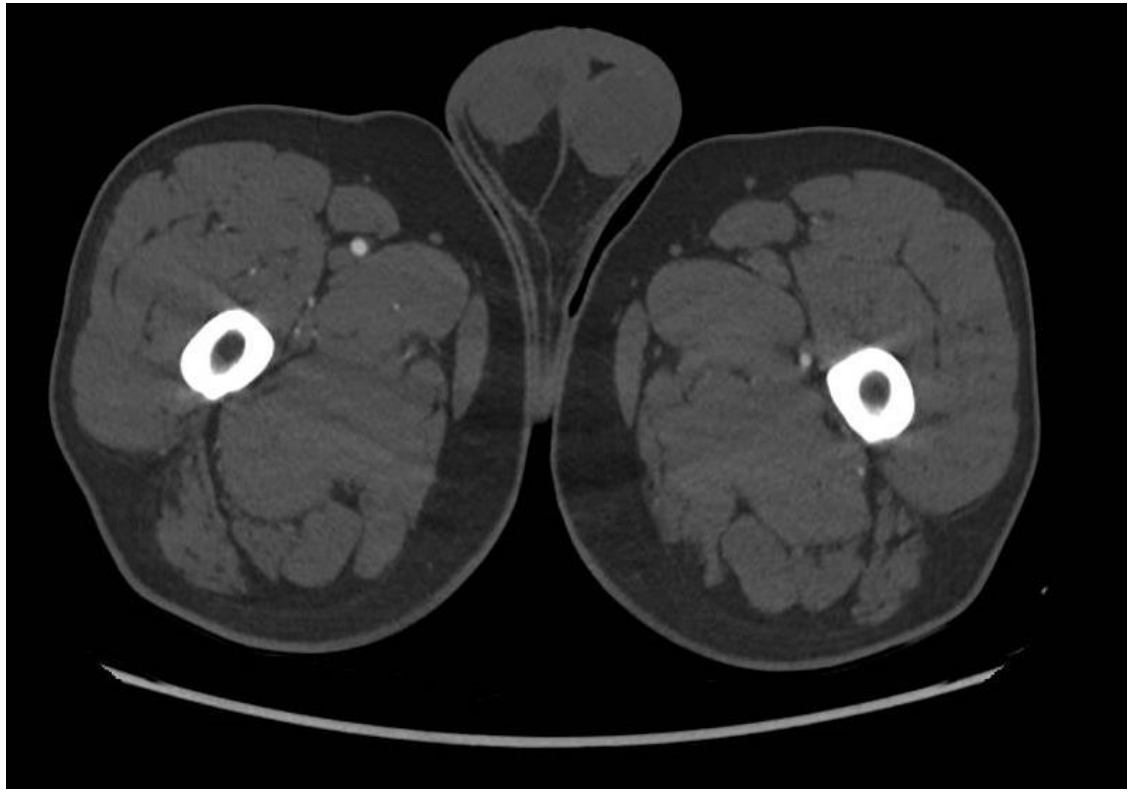
Male, 56 y

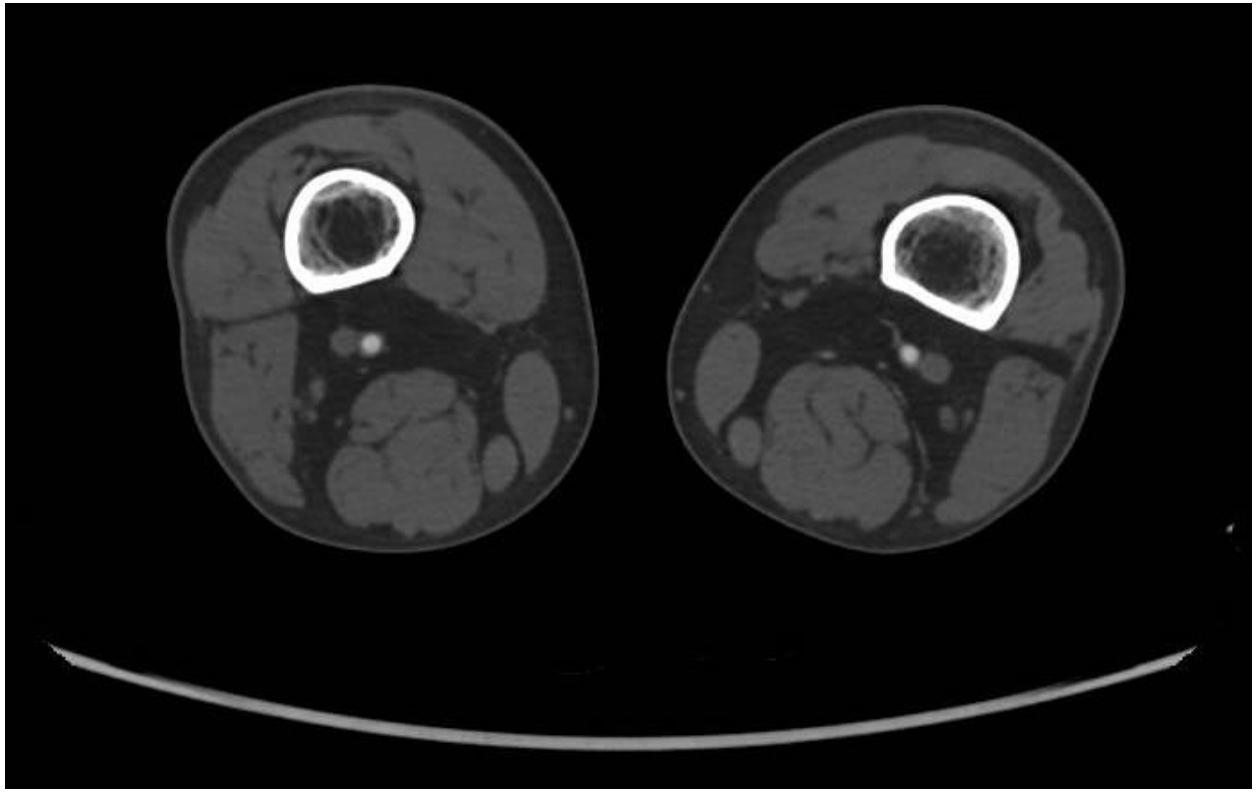
Symptomatology
CLI, left limb(Rutherford 5)

Medical history
- HTA, smoking, diabetes
- Peripheral arterial disease

Duplex scan
Occlusion of the left femoropopliteal artery

Patient CT scan





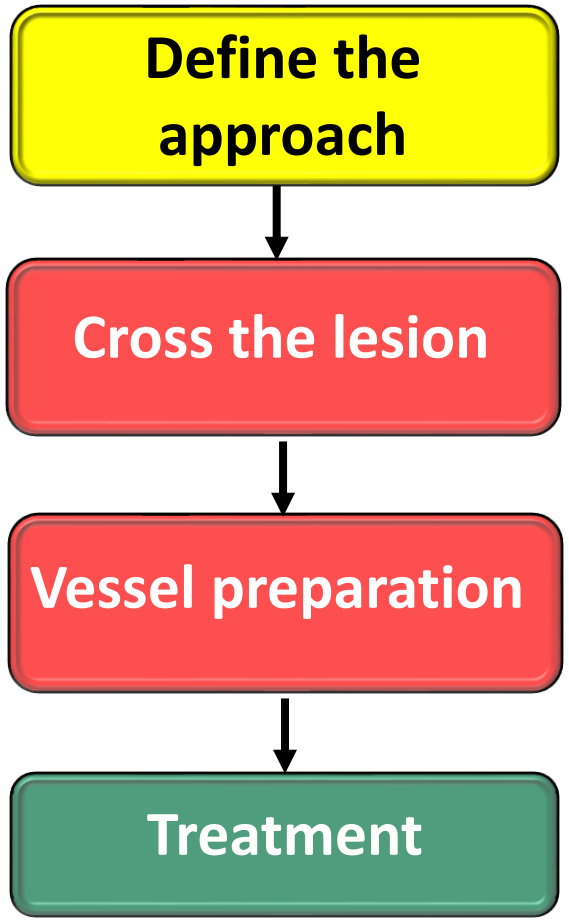
56 years old CLI male, with occluded femoropopliteal segment

- Follow-up ?
- Medical treatment?
- Revascularization: open repair - endo repair ?

“Revascularization should be attempted as much as possible” (class I, level C)

Aboyans, Eur J Vasc Endovasc Surg, 2017

Endovascular femoropopliteal treatment algorythm



Approach

4 mai 2021 – 10:00am

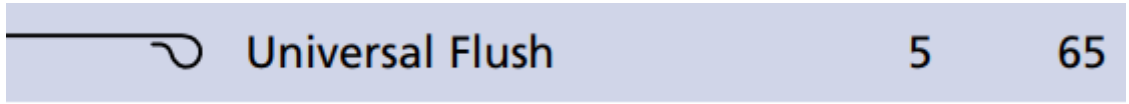
Conventional hospitaization

Controlateral retrograde femoral puncture

under duplex scan guidance

Cross over approach

UF-0.035 260mm stiff GW



Long sheath

6F-45cm sheath – No short sheath

Bolus chase

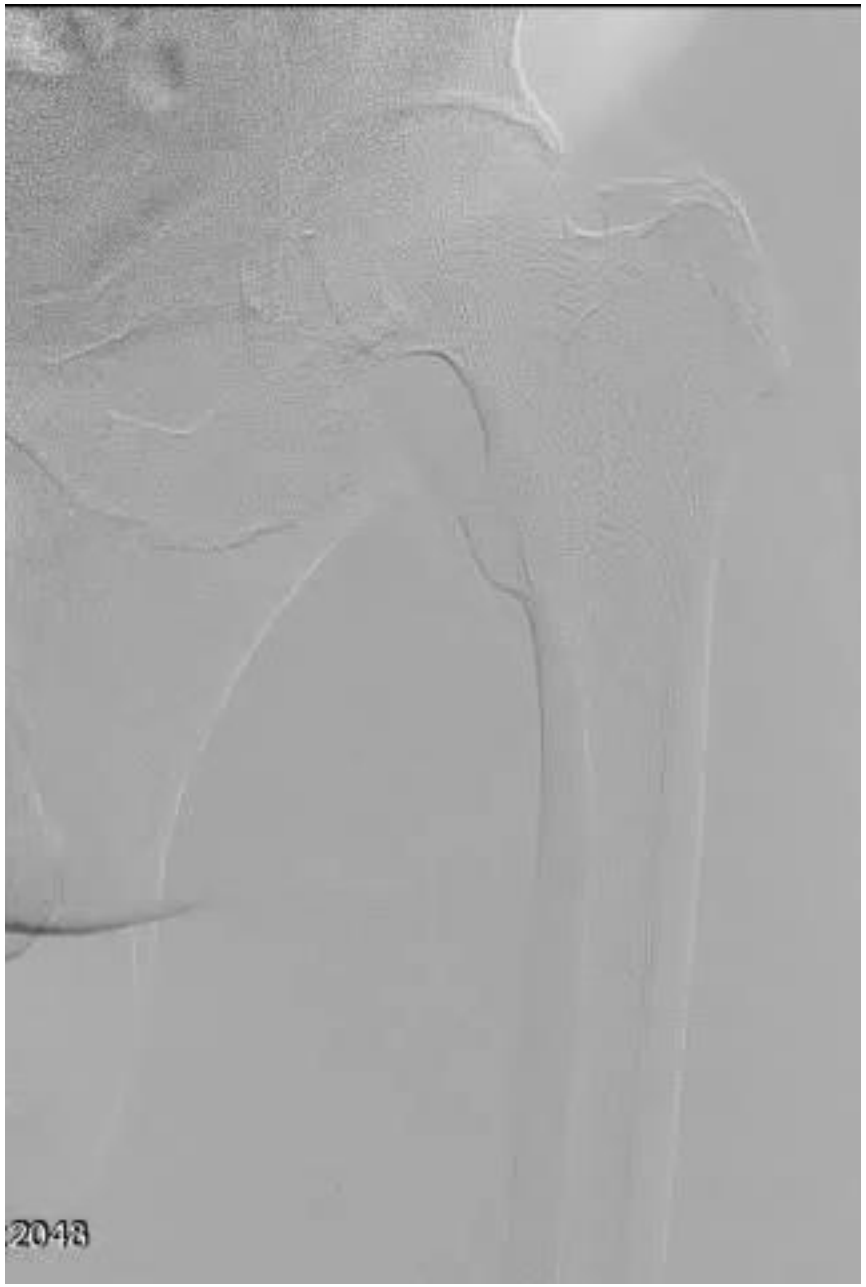
4 mai 2021 – 10:00am

Ipsilateral oblique view

To see the stump

Bolus chase

To assess the lesions



Cross the lesion

Berenstein 2 (Cordis) 5F-65cm

Loop technique
0.035 hydrophilic guidewire

Balloon catheter
5-40 – 6-200 mm

Reentry at P1

Check the reentry

Vessel preparation

Balloon catheter
5-200 mm (duration: 2mn)

Change the 0.035 GW to a 0.018 GW

Check the result (2 incidences)

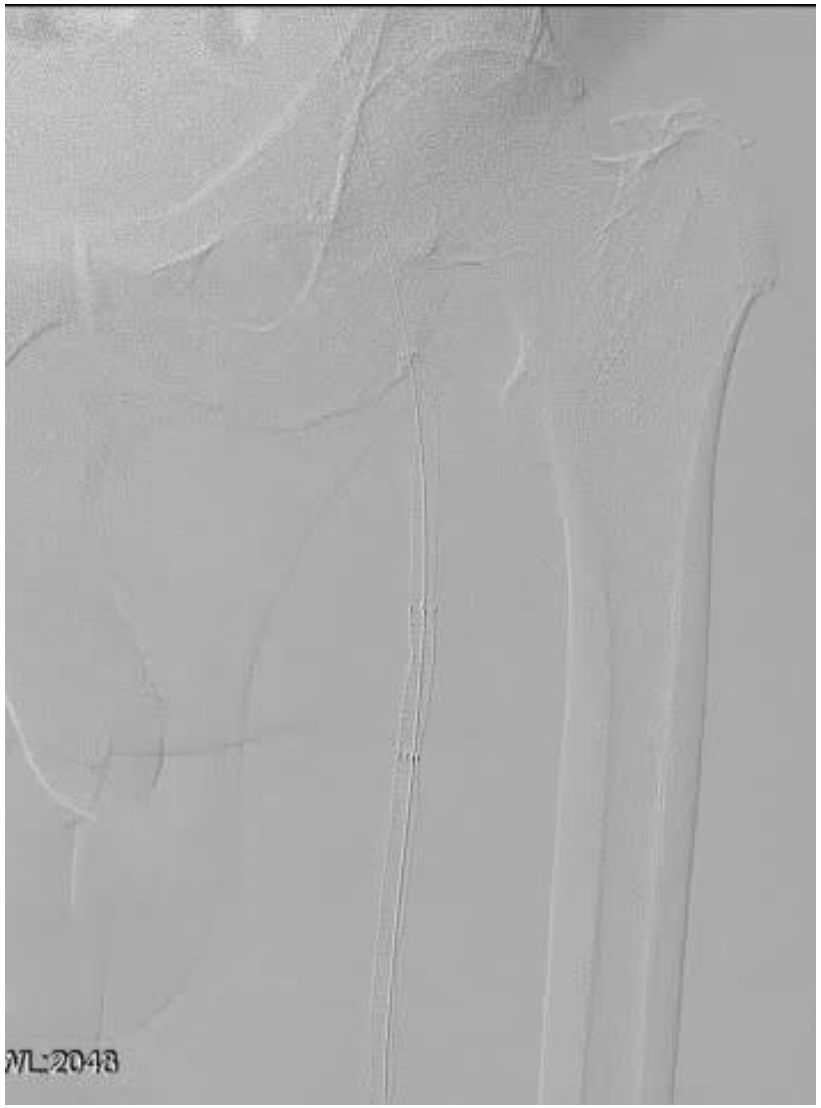
Treatment

4 mai 2021 – 10:00am

Viabahn stent 6-250mm and 6-80mm

Viastar (Lammer, JACC, 2013)

SuperB (Reijnen, JACC interv, 2017)



May 5th 2021 – 8:15am…

Checking before discharge

- Cold foot – Rutherford IIA
- Duplex scan: occlusion of the left femoropopliteal segment

Table 2. Clinical categories of acute limb ischaemia according to Rutherford[2]

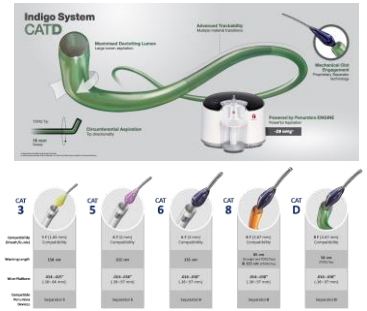
Grade	Category	Sensory loss	Motor deficit	Prognosis	Doppler signals	
					Arterial	Venous
I	Viable	None	None	No immediate threat	Audible	Audible
IIA	Marginally threatened	None or minimal (toes)	None	Salvageable if promptly treated	Inaudible*	Audible
IIB	Immediately threatened	More than toes	Mild/moderate	Salvageable if promptly revascularised	Inaudible	Audible
III	Irreversible	Profound, anaesthetic	Profound, paralysis (rigor*)	Major tissue loss amputation. Permanent nerve damage inevitable	Inaudible	Inaudible

Management ?

- Discharge and follow up ?
- Open surgery and embolectomy +/- bypass ?
- **Endovascular treatement** (thromboaspiration, catheter directed thrombolysis)?

5 mai 2021 – 5:00pm…

Thromboaspiration by Indigo (Penumbra)



8F-45cm sheath

Catheter directed thrombolysis (CDT)

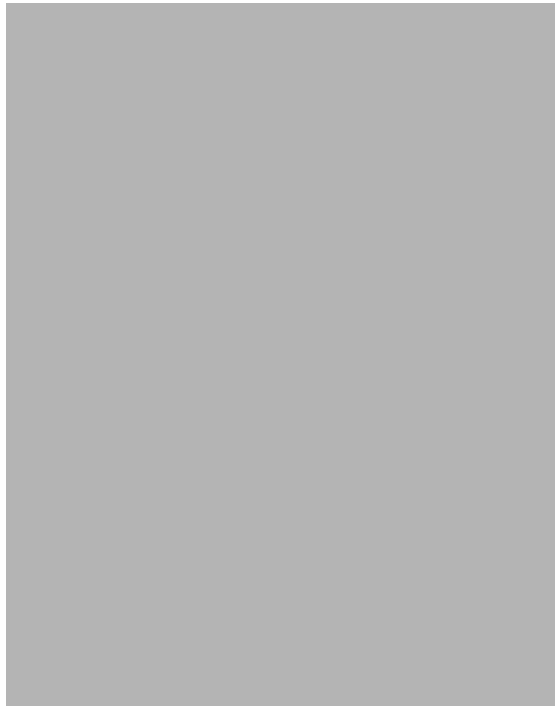
8F-11cm sheath

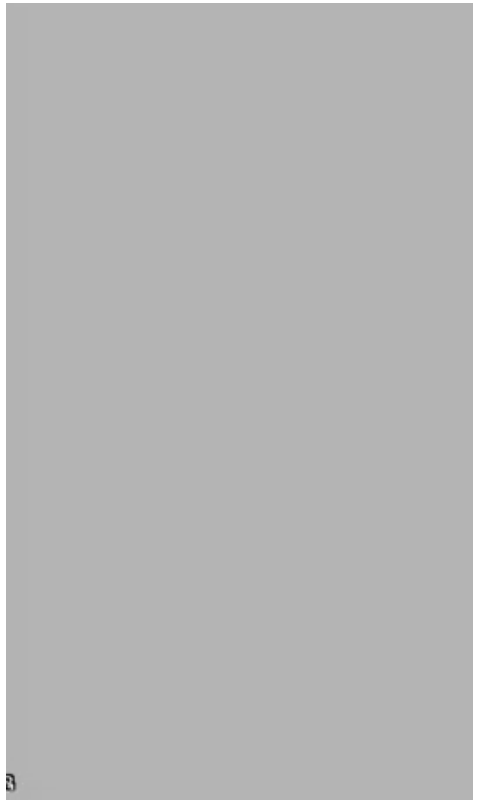
Adapted Mac Namara protocol

- UROKINASE (Actosolv®)

- 1000 UI / Kg / heure, during 8 hours.

- *Intravenous Heparin 24h a day*
- *ICU follow up*





6 mai 2021 – 8:30am: 1st CDT control, but…

Clinical worsening

Table 2. Clinical categories of acute limb ischaemia according to Rutherford[2]

Grade	Category	Sensory loss	Motor deficit	Prognosis	Doppler signals	
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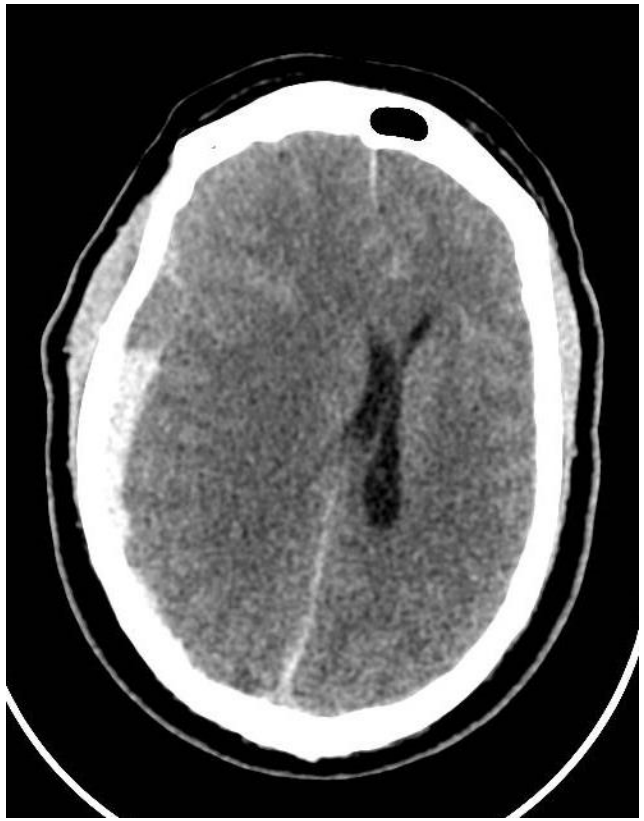
Open conversion

- Platelets: 175.000/mm^3
- Informed consent of the patient
- General anesthesia
- Groin approach and Fogarty thrombectomy
- Popliteal approach and Fogarty thrombectomy
- Fasciotomy

6 mai 2021 – 12:30pm – at the recovery room…

- Bilateral and aeractive mydriasis
- Brain CT scan : right subdural hematoma with mass effect
- Transfert to the neurological intensive care unit
- Patient died May 7th 2021



Head CT scan

Investigations

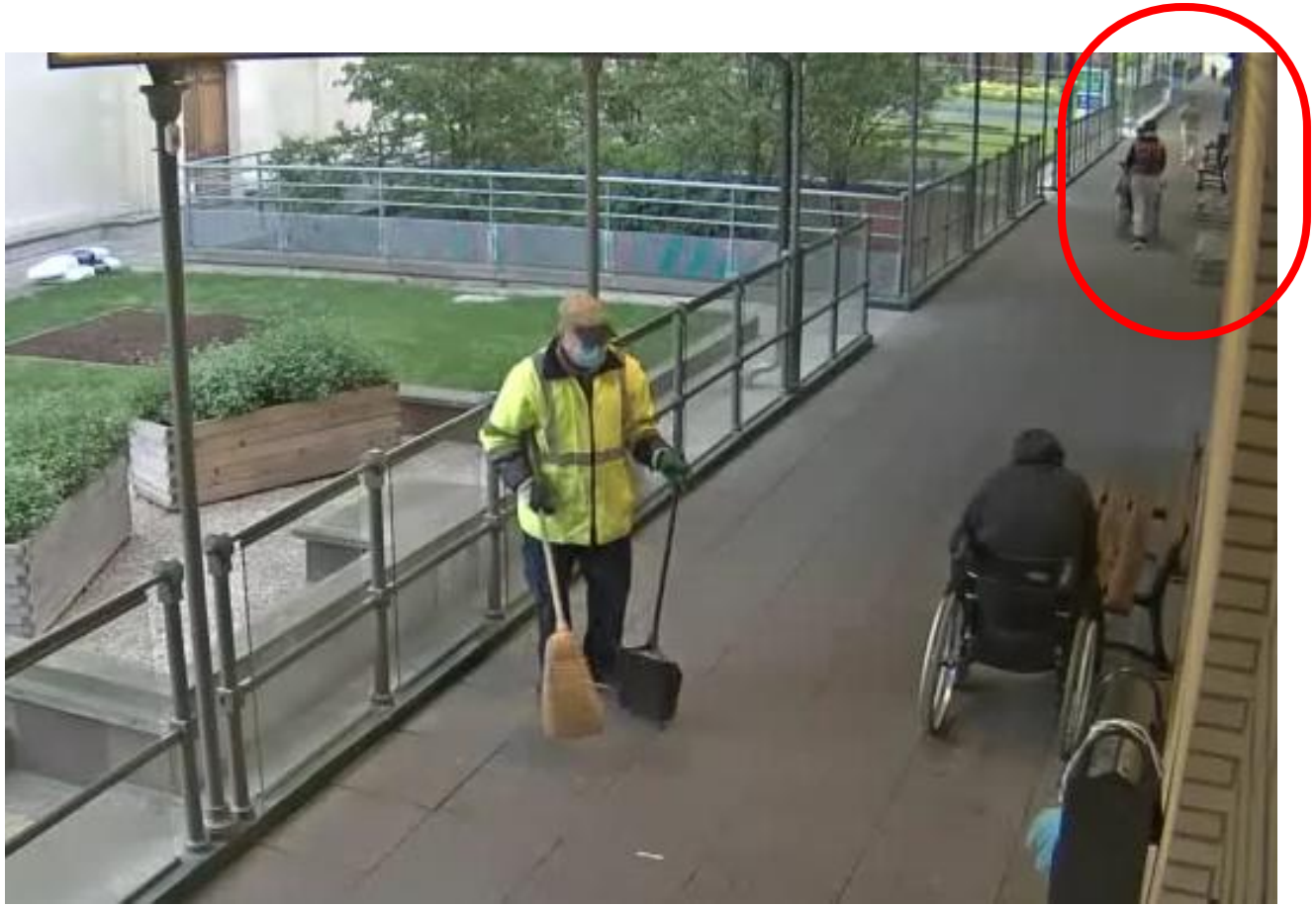
- No atrial fibrillation or cardiac disorder
- No embolism
- No platelet decrease
- …

His daughter reported a father fall

- 4/5/2021: endovascular recanalization
- **5/5/2021: fall between 6:30 and 7:30am**
- 5/5/2021 @ 5:00pm: thrombaspiration and CDT

Hospital video recording

5/5/2021 between 6:30 and 7:30am



Take home message

- Acute thrombosis after femoropopliteal revascularization could happen
- Thromboaspiration +/- thrombolysis
- CDT should be always carefully followed up (recovery room / ICU)
- RMM: « Tout évènement doit être consigné par écrit. Aucune chute n'est anonyme. Le non respect des consignes par le patient doit être tracé par les soignants. Pour toute chute, une trace est nécessaire (constat, FEI, transmission ciblée) y compris lorsqu'elle survient hors du service »

The occluded Stent and the Wheelchair

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