ANTEGRADE CROSSING OF CTO SFA

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6 OCTOBER HOSPITAL HIO

- German Society of Angiology (Deutsche Gesellschaft für Angiologie [DGA]), developed a novel algorithm for the endovascular treatment of peripheral chronic total occlusive lesions (CTOs) published on 2023 . Aiming to improve patient and limb related outcomes, by increasing the success rate of endovascular procedures

The following steps are proposed:

- (i) APPLY Duplex sonography and if required 3D techniques such as

  computed tomography or magnetic resonance angiography. This will help you to select the optimal access site.
- (ii) EVALUATE the CTO cap morphology and distal vessel refilling sites during diagnostic angiography, which are potential targets for a retrograde access. (iii) START with antegrade wiring strategies including guidewire (GW) and support catheter technology. Use GW escalation strategies to penetrate the proximal cap of the CTO, which may usually be fibrotic and calcified.

- (iv) STOP the antegrade attempt depending on patient specific parameters and the presence of retrograde options, as evaluated by pre-procedural imaging and during angiography.
- (v) In case of FAILURE, consider advanced bidirectional techniques and reentry devices.
- (vi) In case of SUCCESS, externalize the GW and treat the CTO. Manage the retrograde access at the end of the endovascular procedure

- (vii) STOP the procedure if no progress can be obtained within 3 hours, in case of specific complications or when reaching maximum contrast administration based on individual patient’s renal function. Consider radiation exposure both for patients and operators. In this manuscript we systematically follow and explain each of the steps (i)–(vi) based on practical examples from our daily routine. We strongly believe that the integration of this algorithm in the daily practice of endovascular specialists, can improve vessel and patient specific outcomes

WHICH WAY TO GO ?

SUBINTIMAL

- NEW CHANNEL
- GO AROUND CALCIUM
- RELATIVELY FAST

TRANSLUMINAL

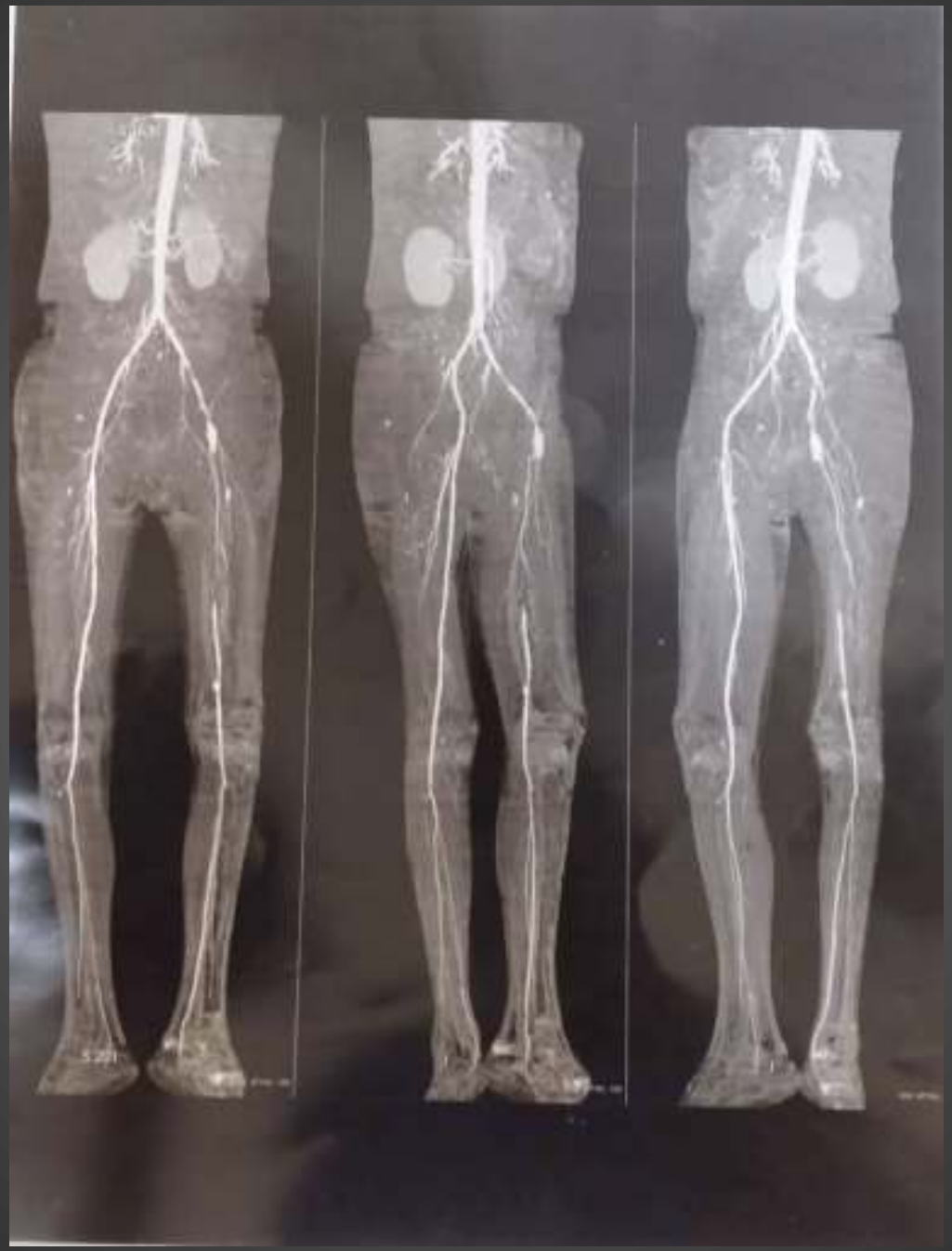
- PRESERVE COLLATERALS
- RESTORE RATHER THAN INJURE THE VESSEL
- BUT PROCEDURE COULD BE LONGER THAN SI APPROACH

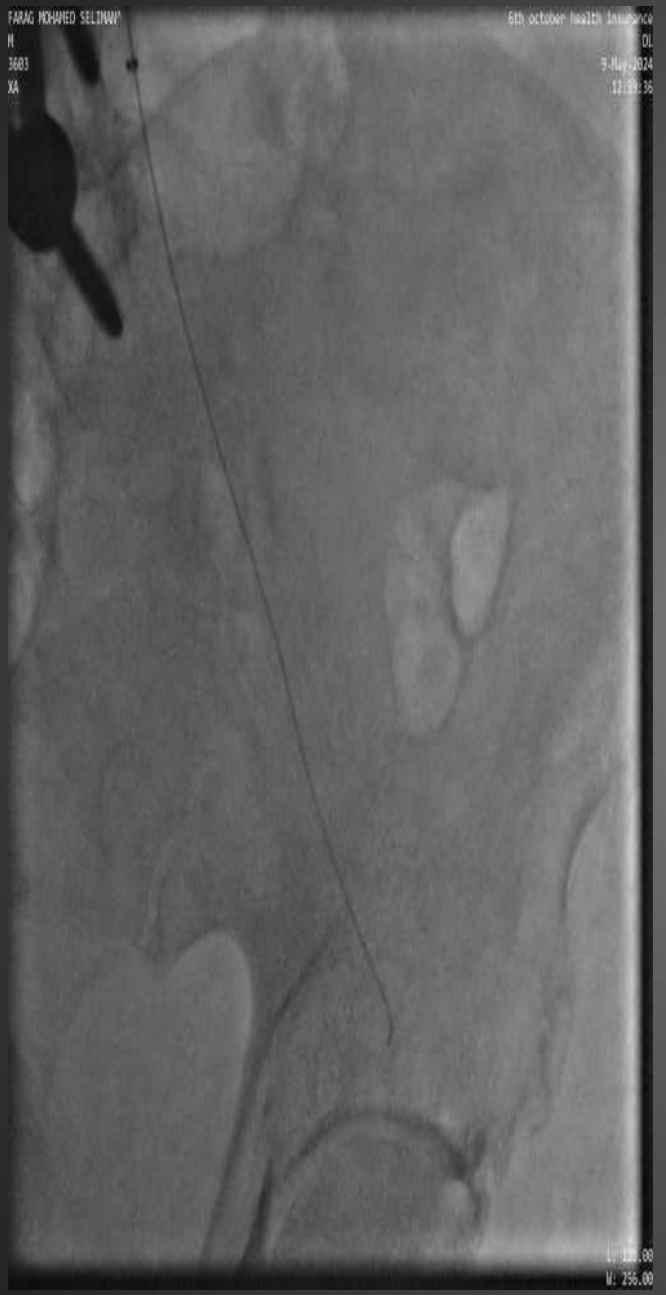
CASE 1

- 49 Y.O man with CLI present with sever rest pain in left foot and ulcerated wound on TMA stump
- SHX left fem pop bypass by synthetic graft ,left TMA
- PMHX: IDDM , HTN,HLD, PCI 3Y ago
- Smoker 1 PPD *25 Y
- MEDS : ASA ,PLAVIX 75mg ,ATORVASTATIN 40mg,NAFTIDROFURYL 200mg

EXAM

- CFA PALPABLE
- POP NO PALAPLE , DPS/PT NO PALAPLE

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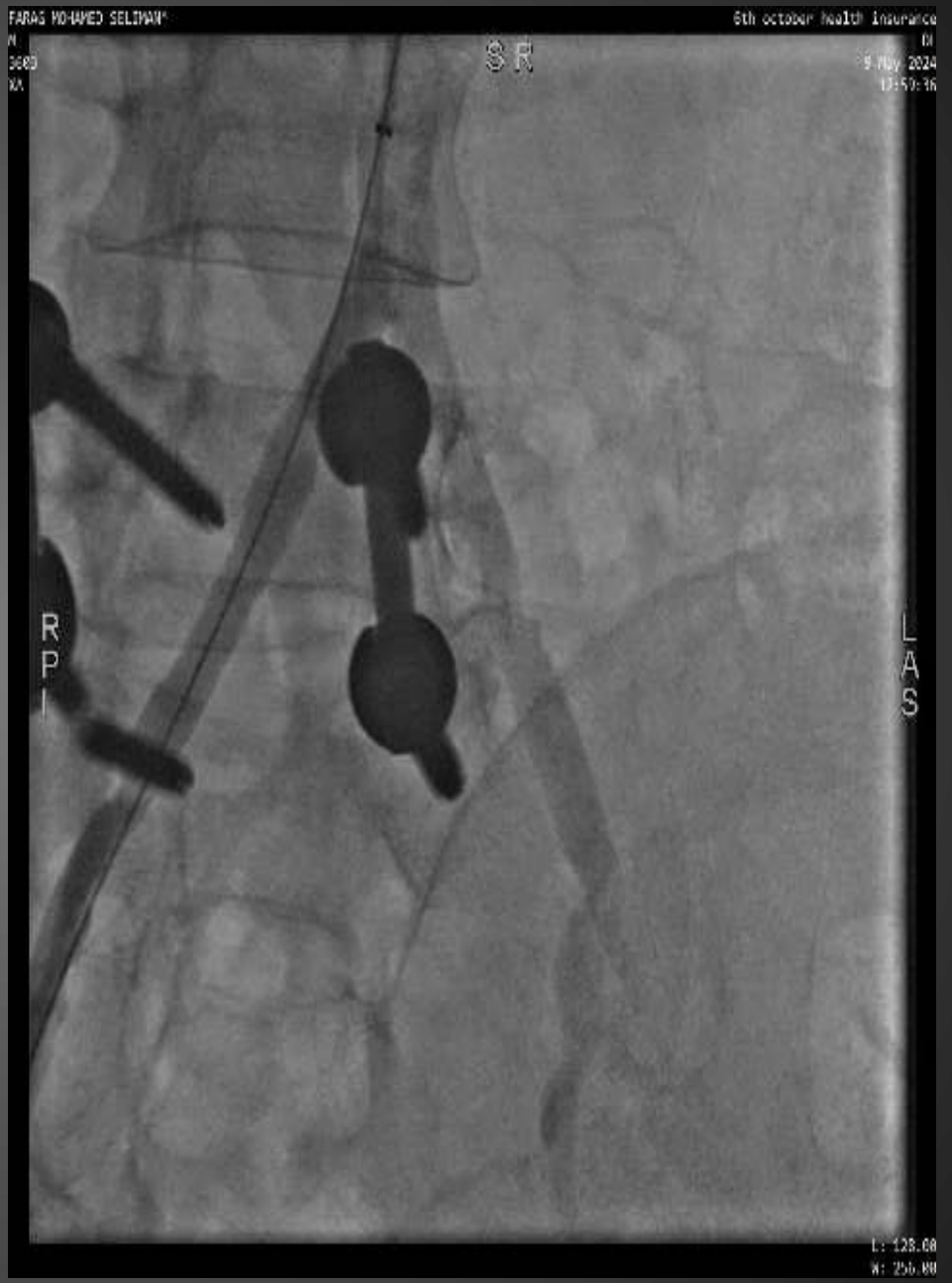
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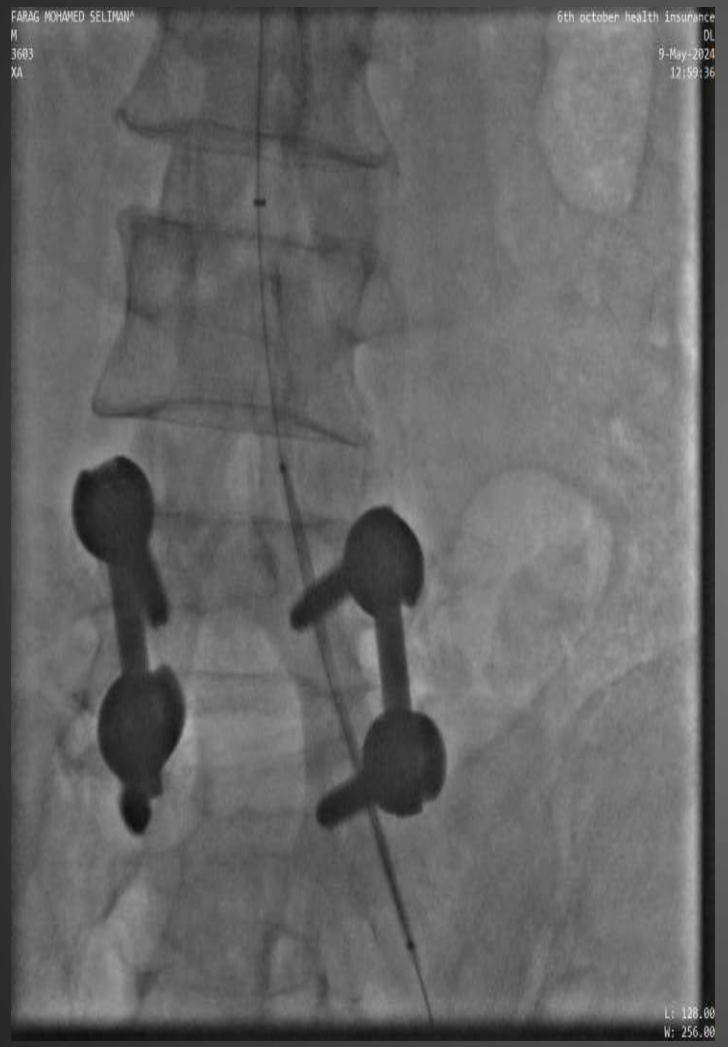
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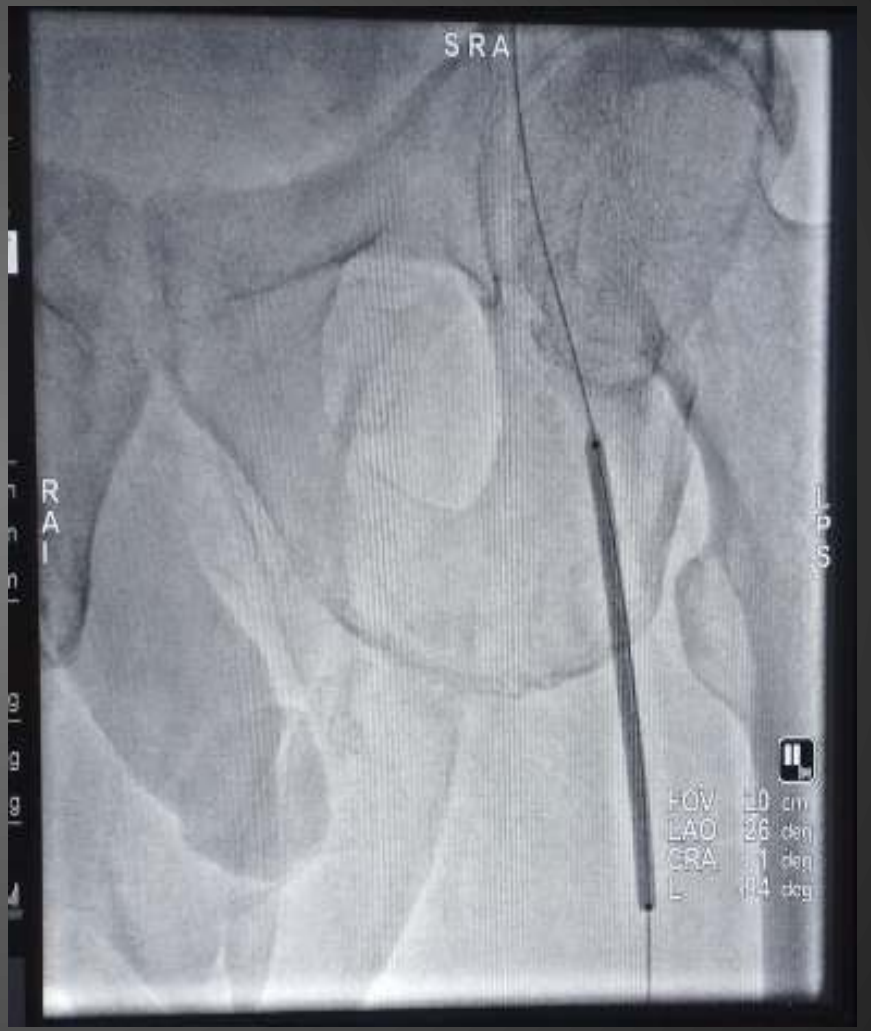
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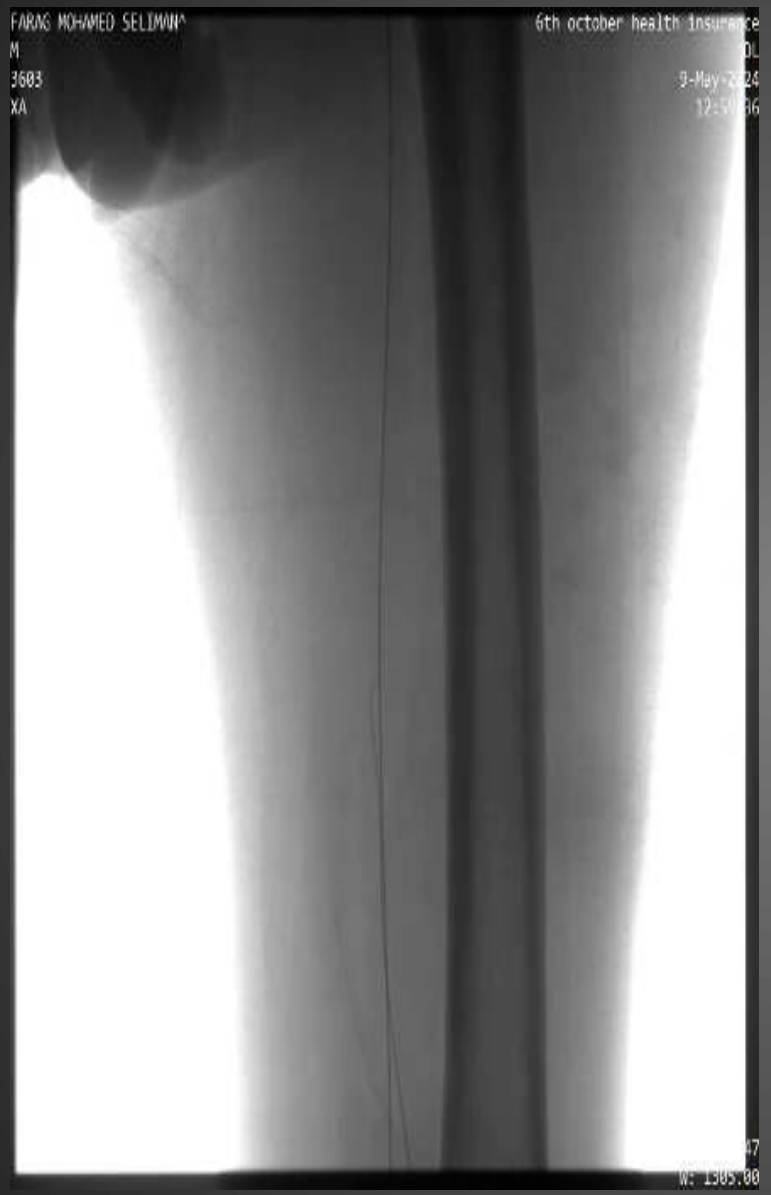
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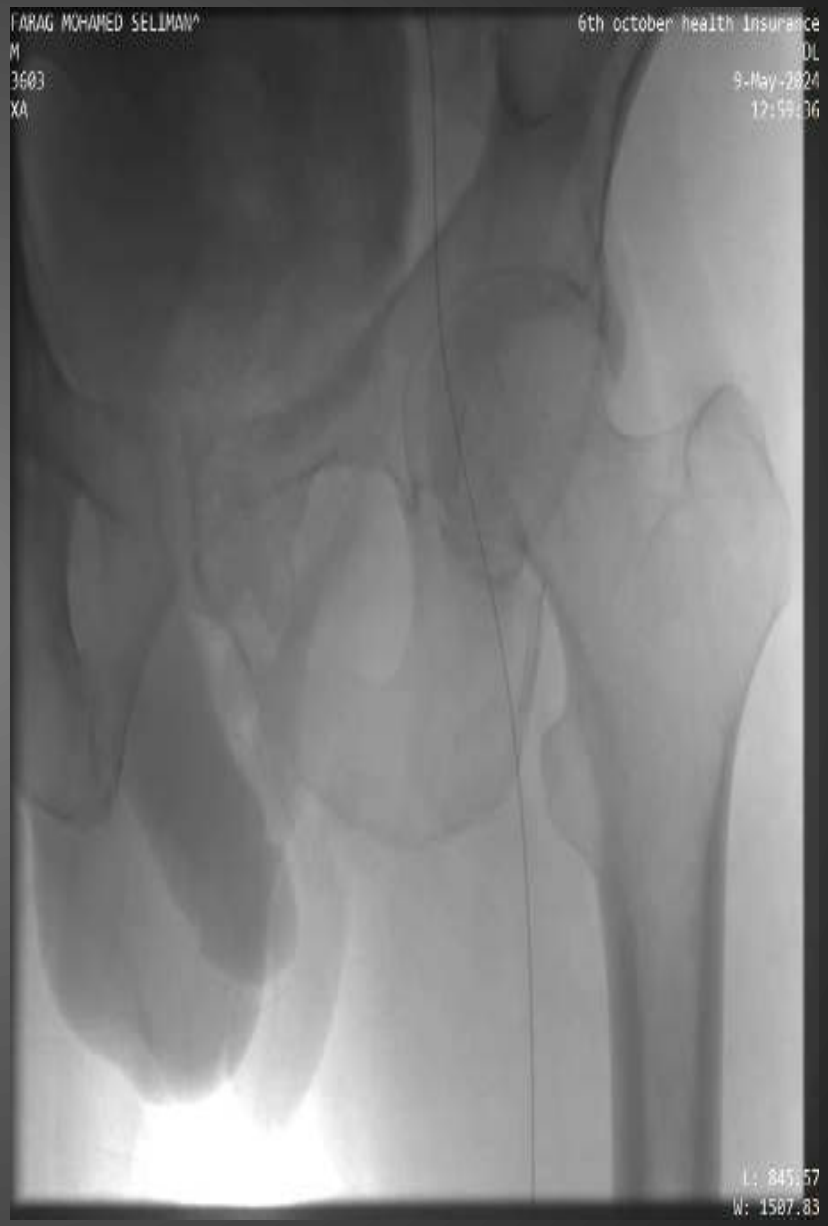
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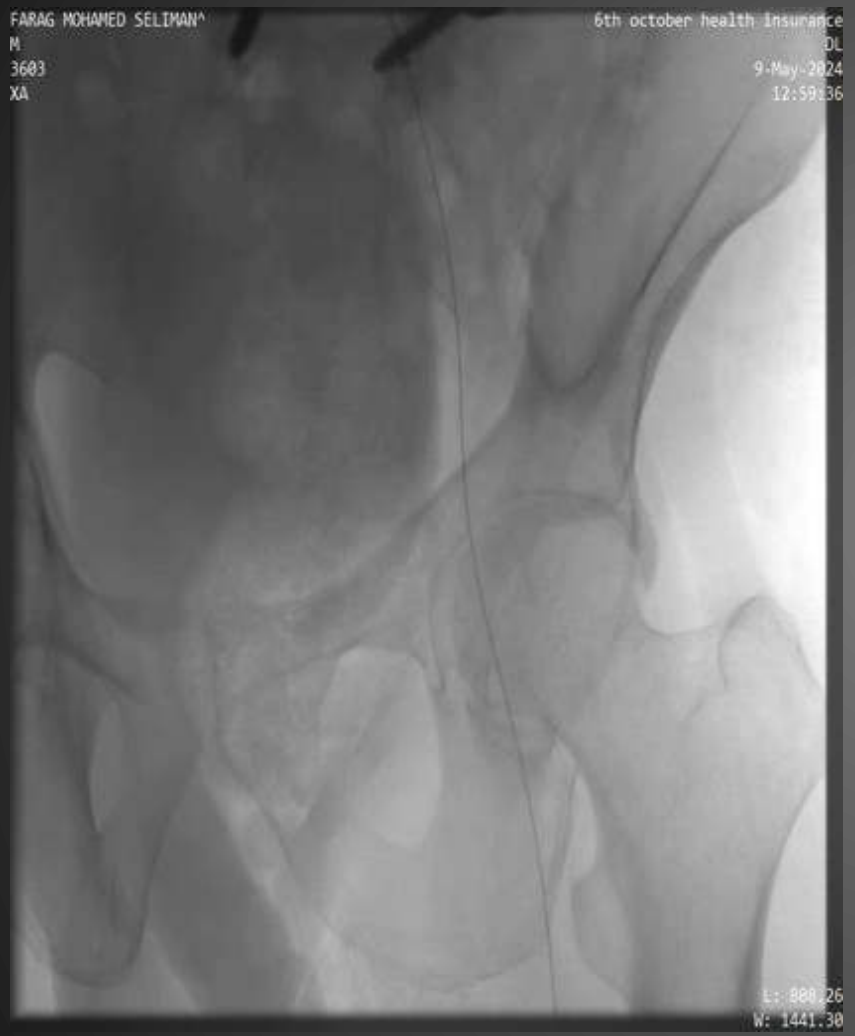
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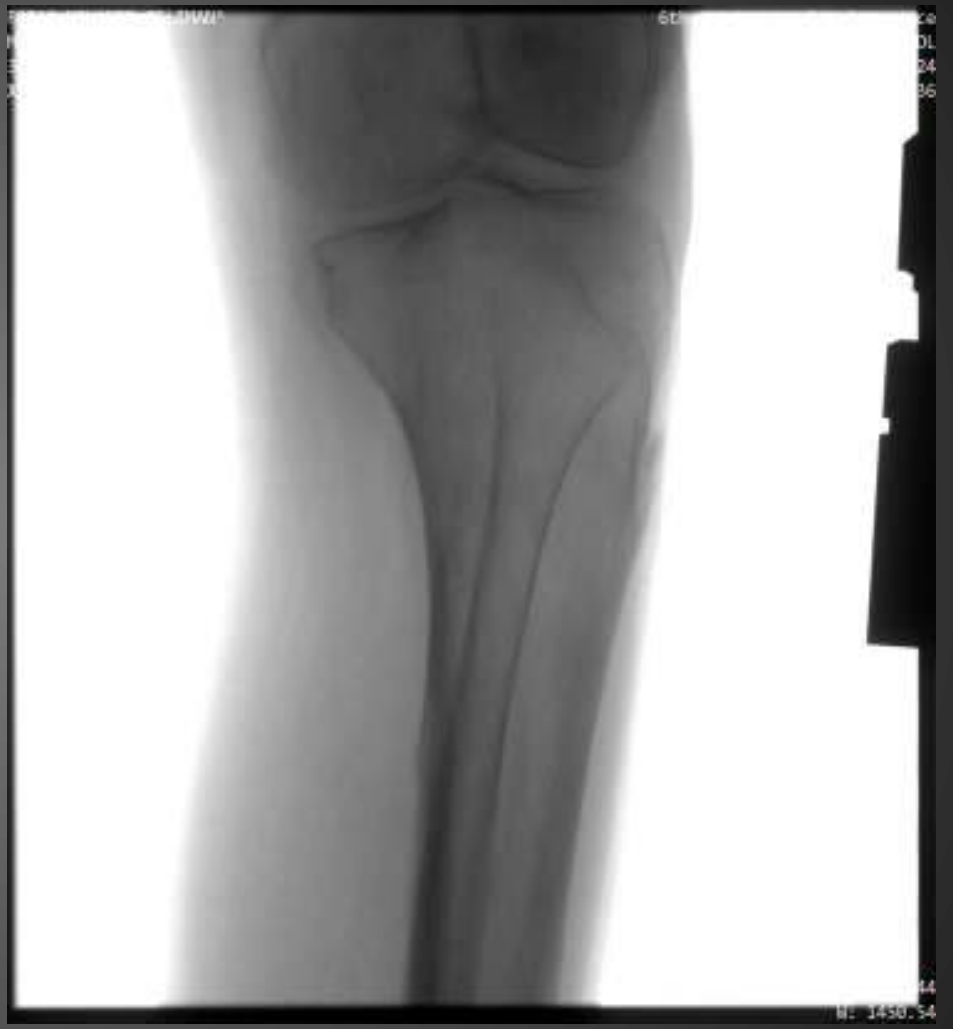
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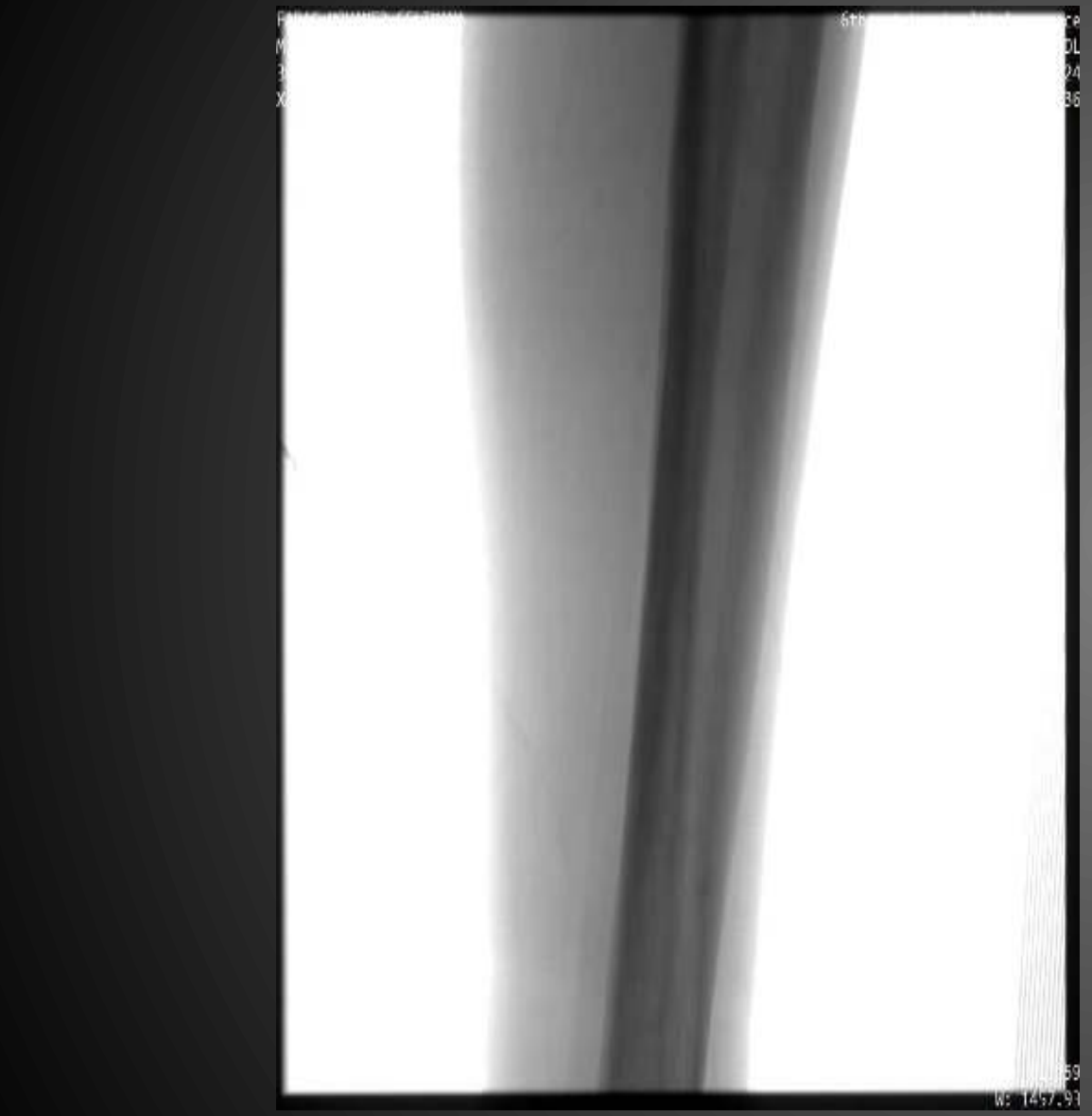

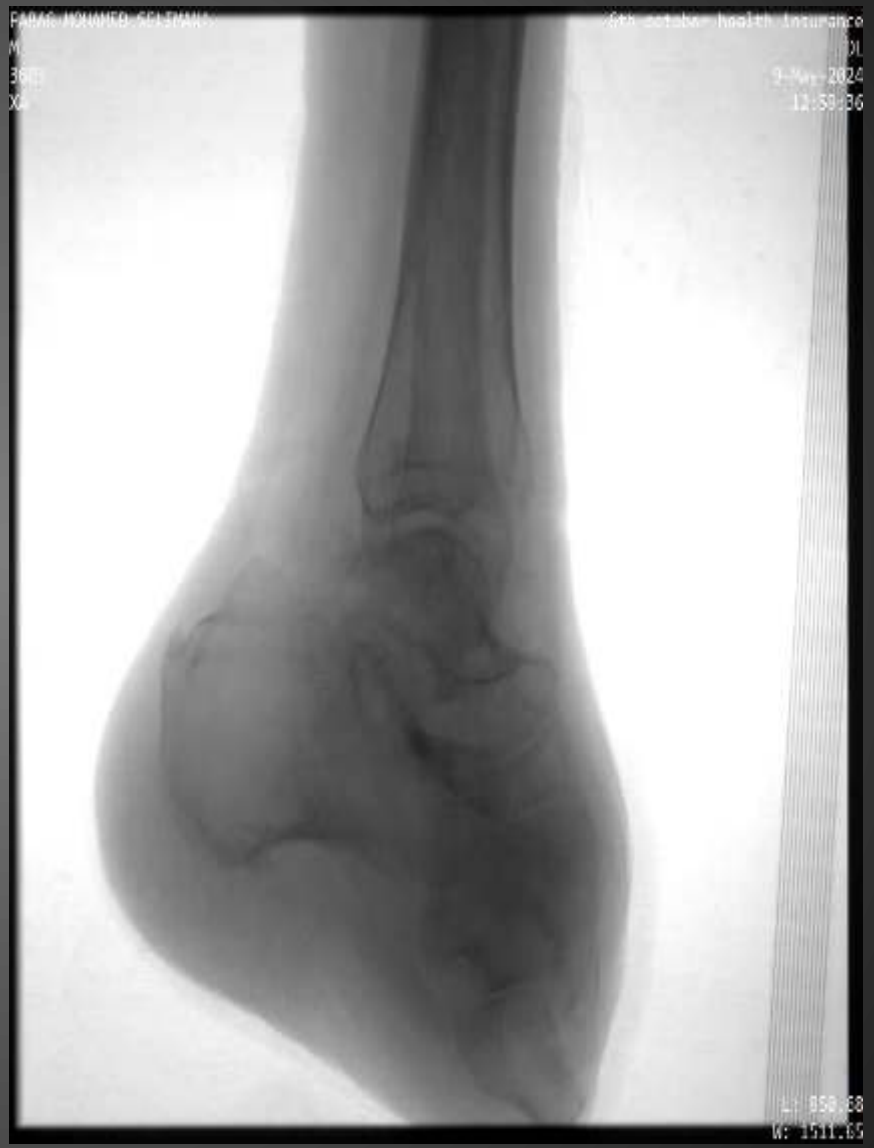

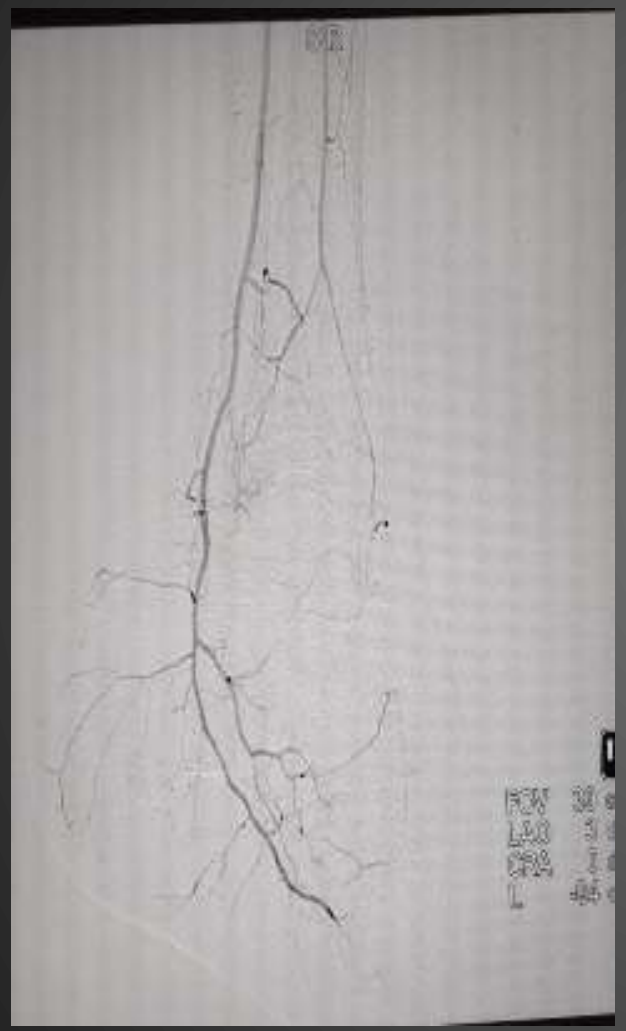

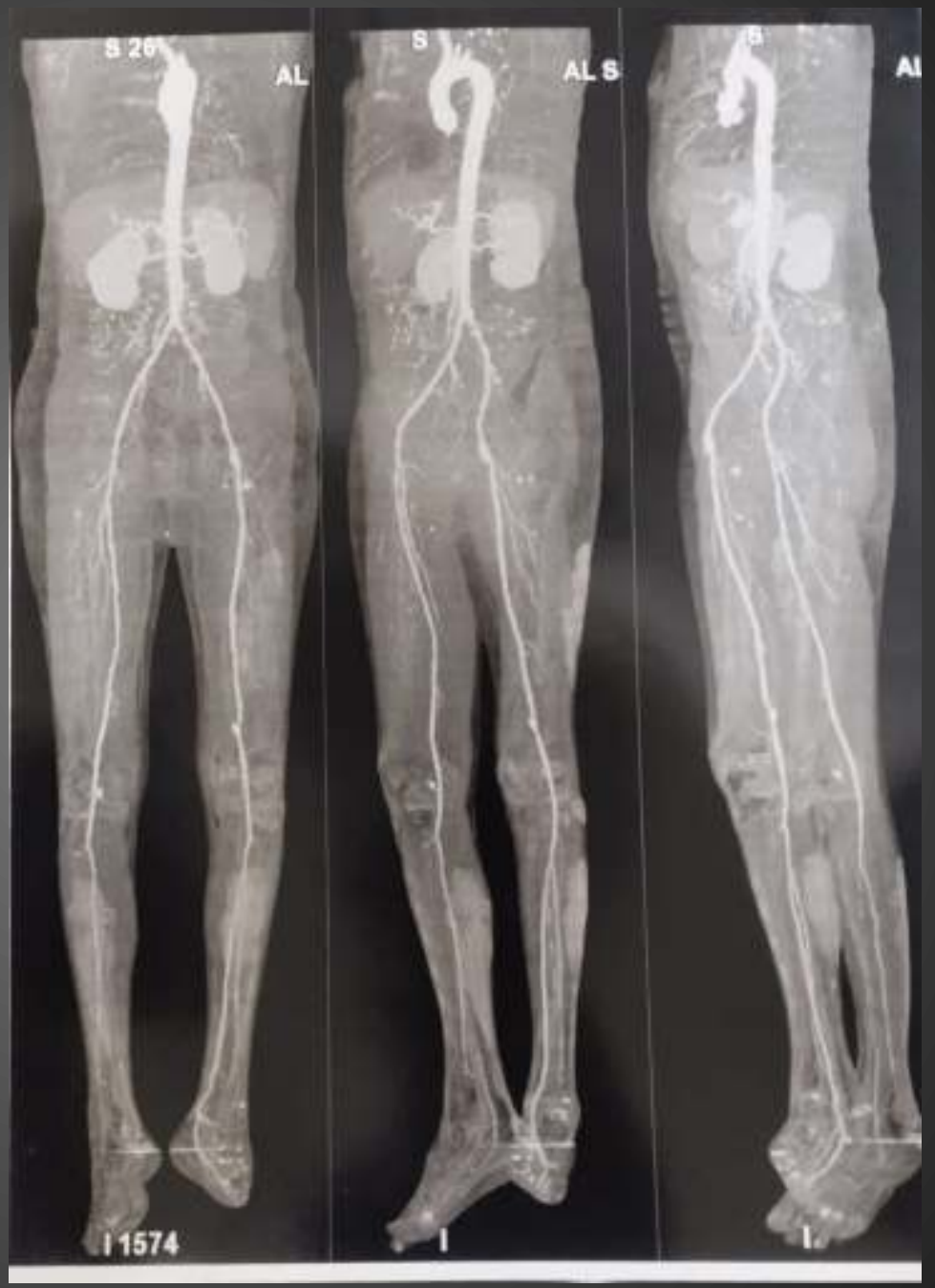
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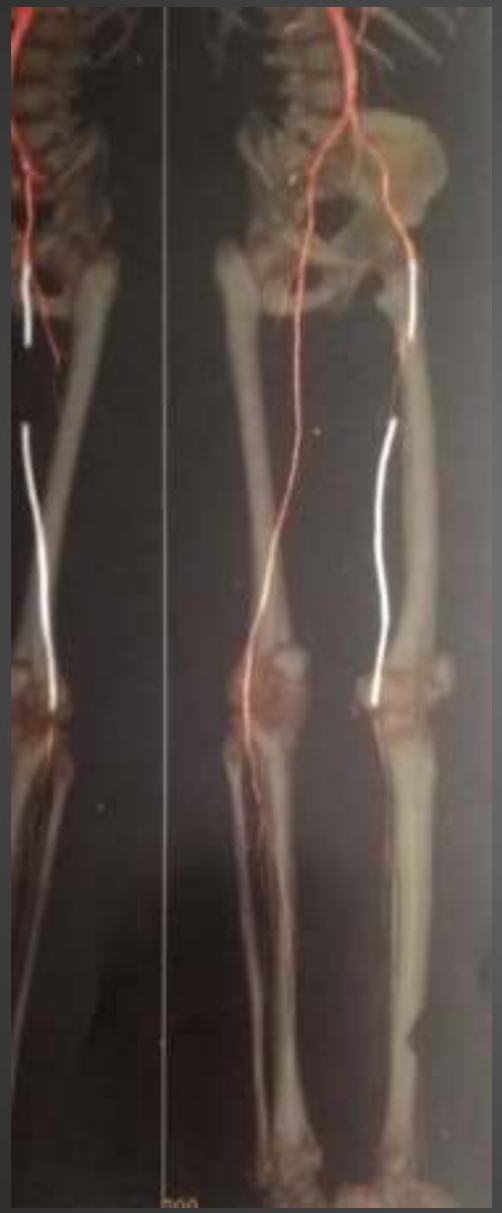
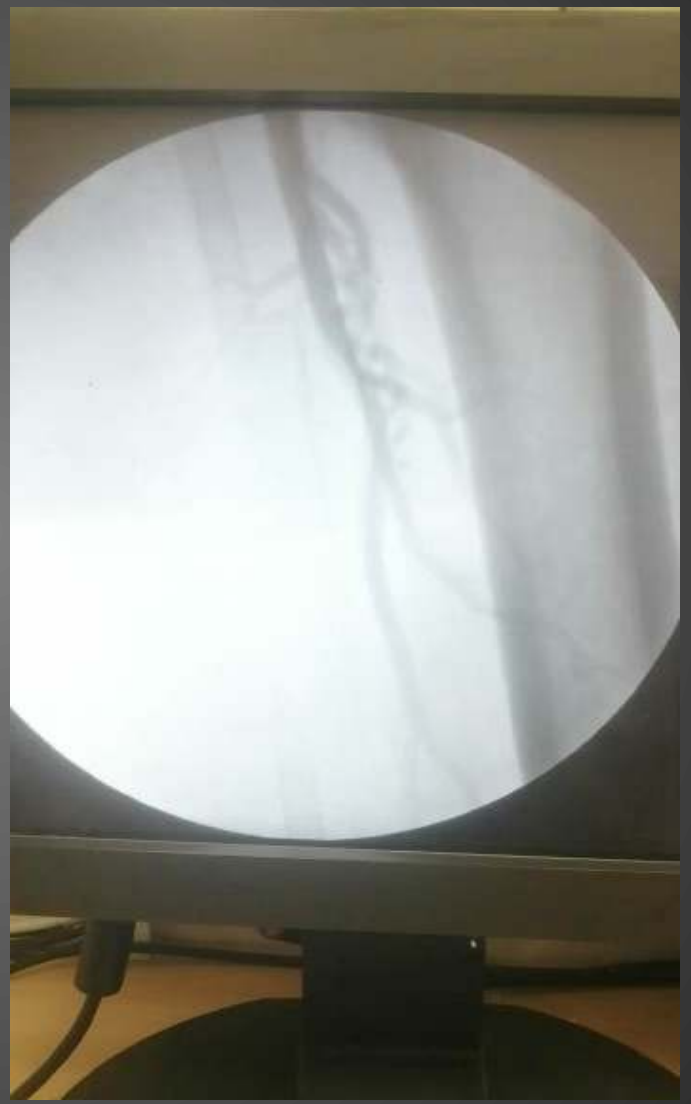
CASE 2

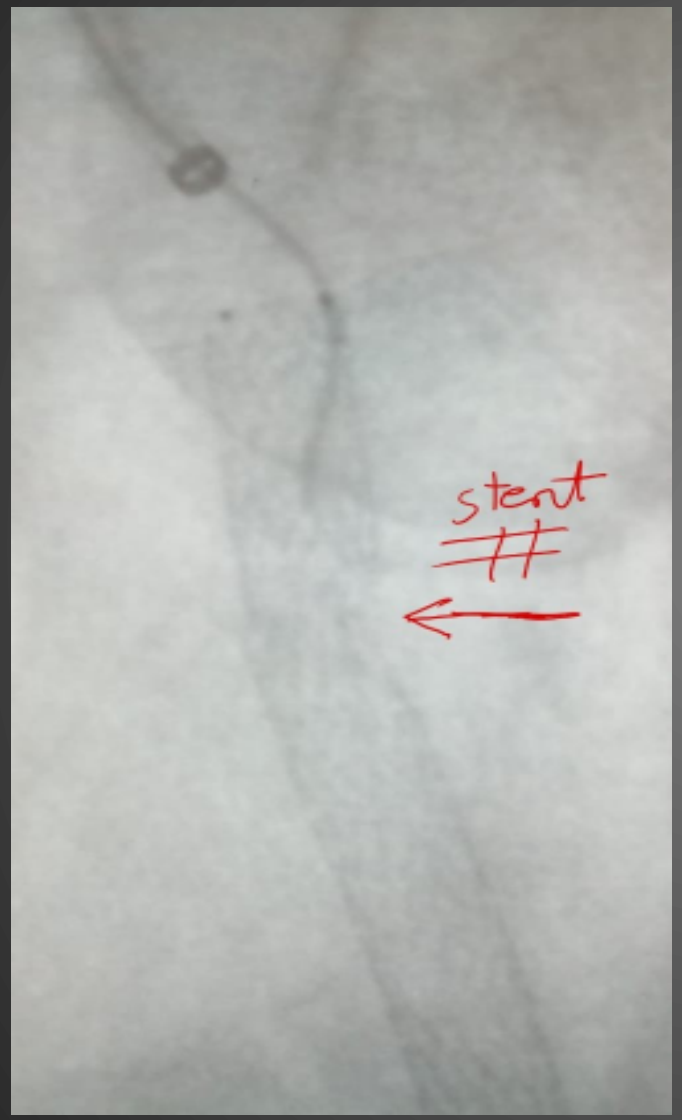
- 63 Y.O man with CLI present with sever rest pain in left foot and gangrenous left 2,3 toes
- SHX angioplasty with stenting left SFA
- PMHX: IDDM , HTN,HLD, PCI 5Y ago
- Smoker 2PPD *42 Y
- MEDS :CLEXAN 60MG, ASA ,PLAVIX 75mg ,ATORVASTATIN 40mg,NAFTIDROFURYL 200mg

EXAM

- CFA PALPABLE
- POP NO PALAPLE , DPS/PT NO PALAPLE



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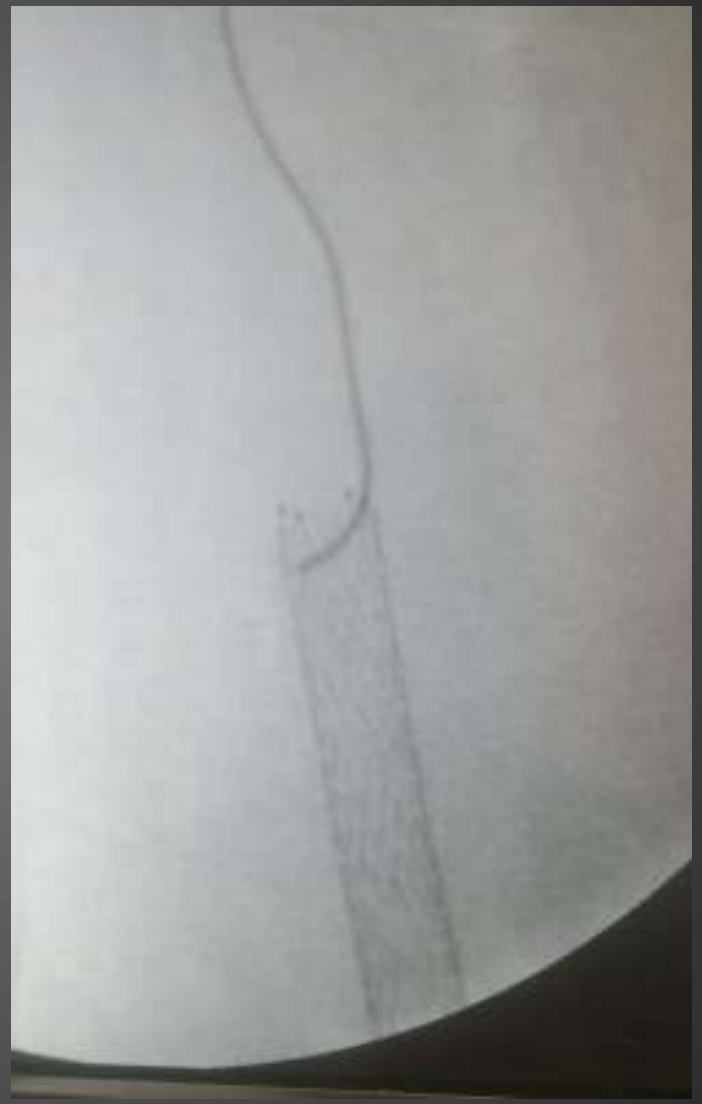

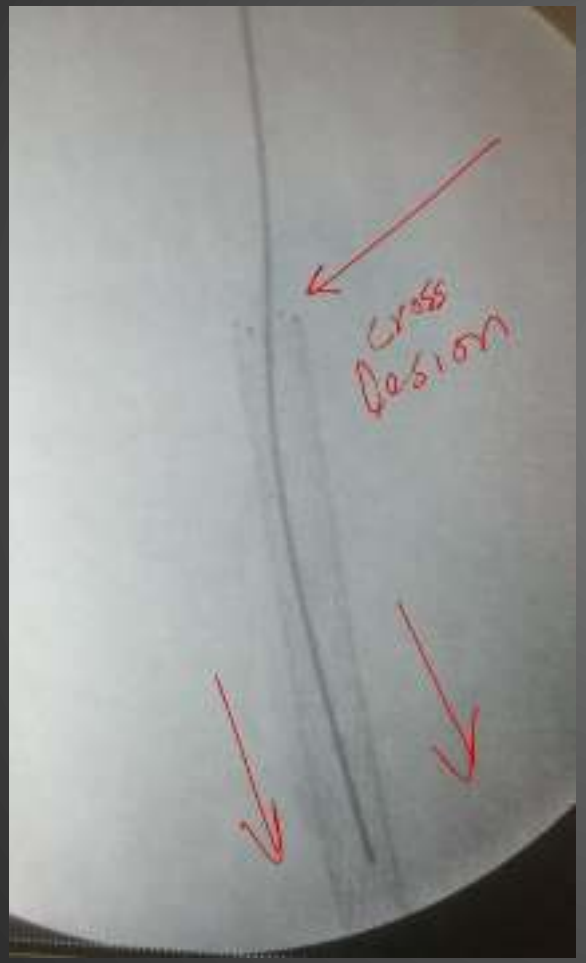
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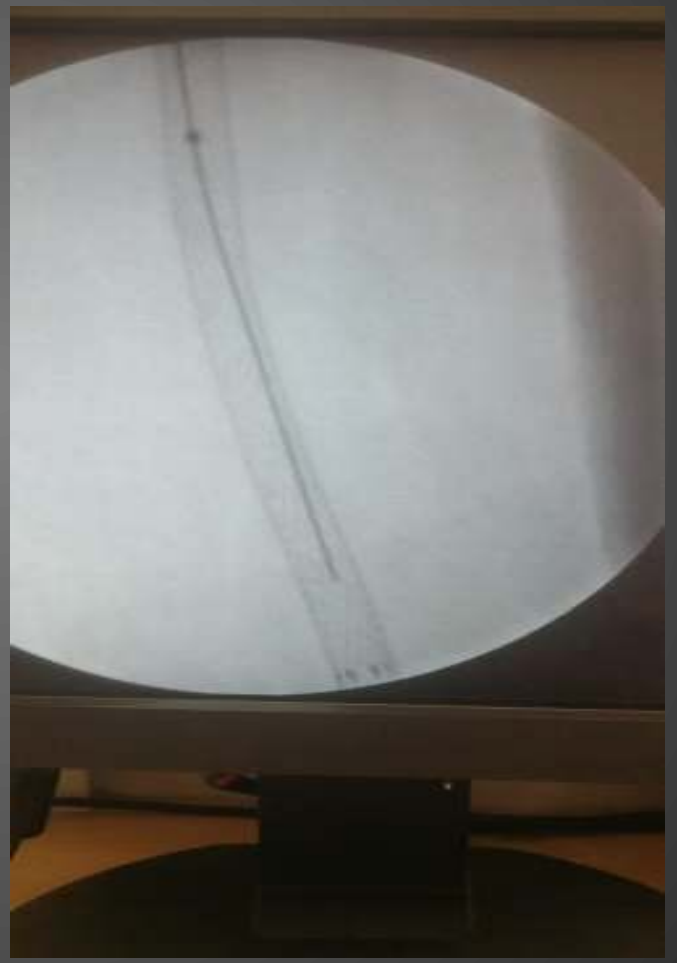
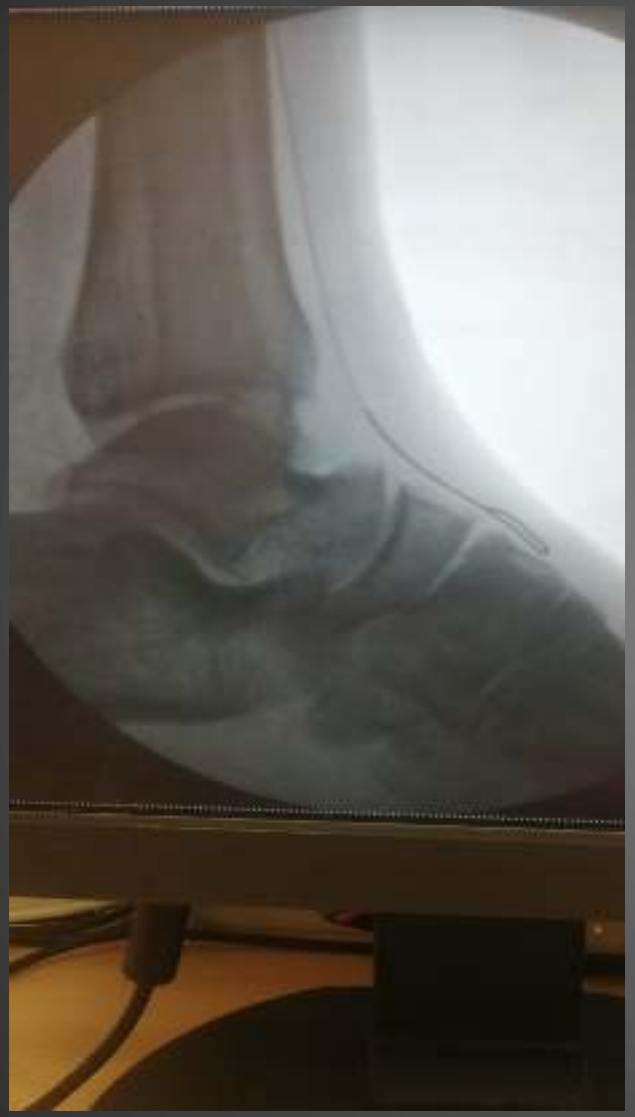
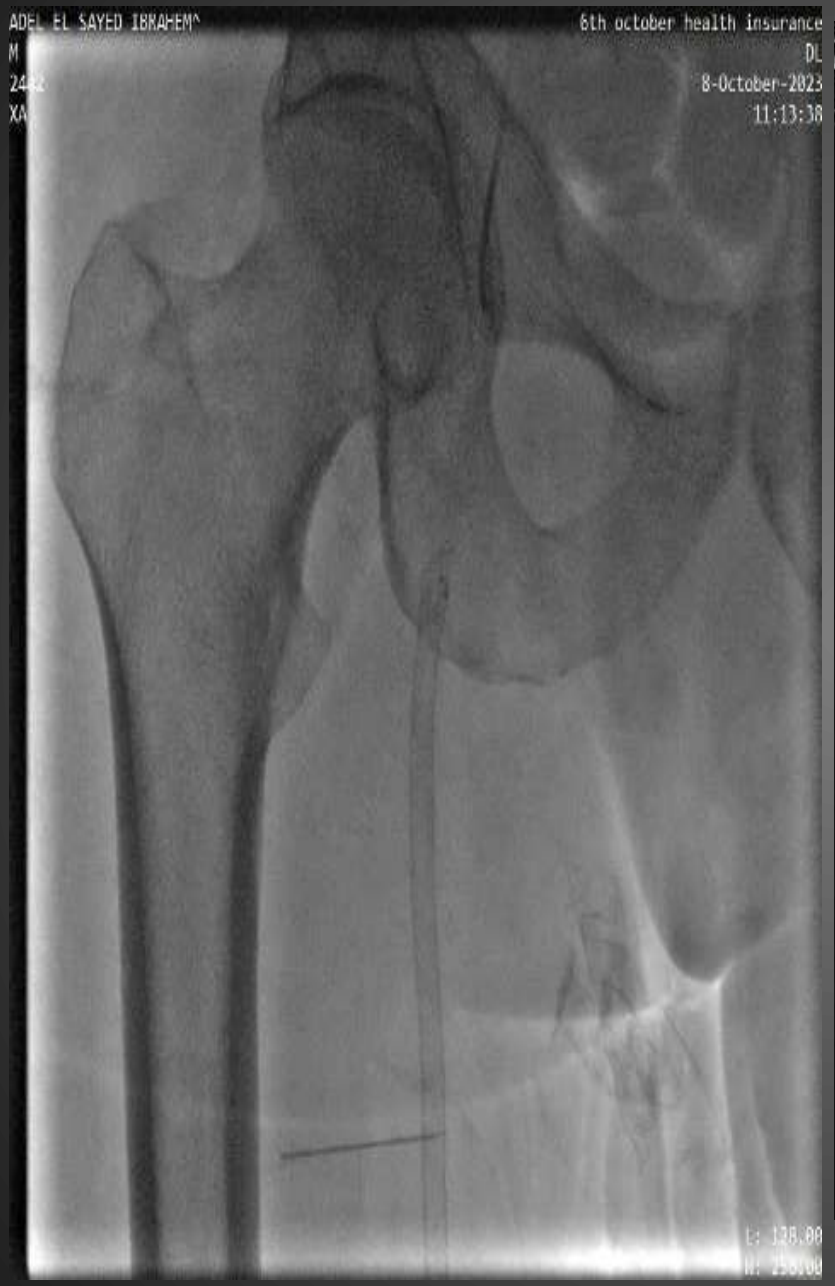




CASE 3

- 55 Y.O man with CLI present with sever rest pain in Right foot
- SHX angioplasty with stenting Right SFA * 2 year
- PMHX: IDDM , HTN,HLD, PCI 7 month ago
- Smoker 1PPD *30 Y
- MEDS :CLEXAN 60MG, ASA ,PLAVIX 75mg ,ATORVASTATIN 40mg,NAFTIDROFURYL 200mg
- EXAM
- Left AKA
- Right leg
  - CFA PALPABLE
  - POP NO PALAPLE , DPS/PT NO PALAPLE
  - Dependent rubor, chronic ischemic changes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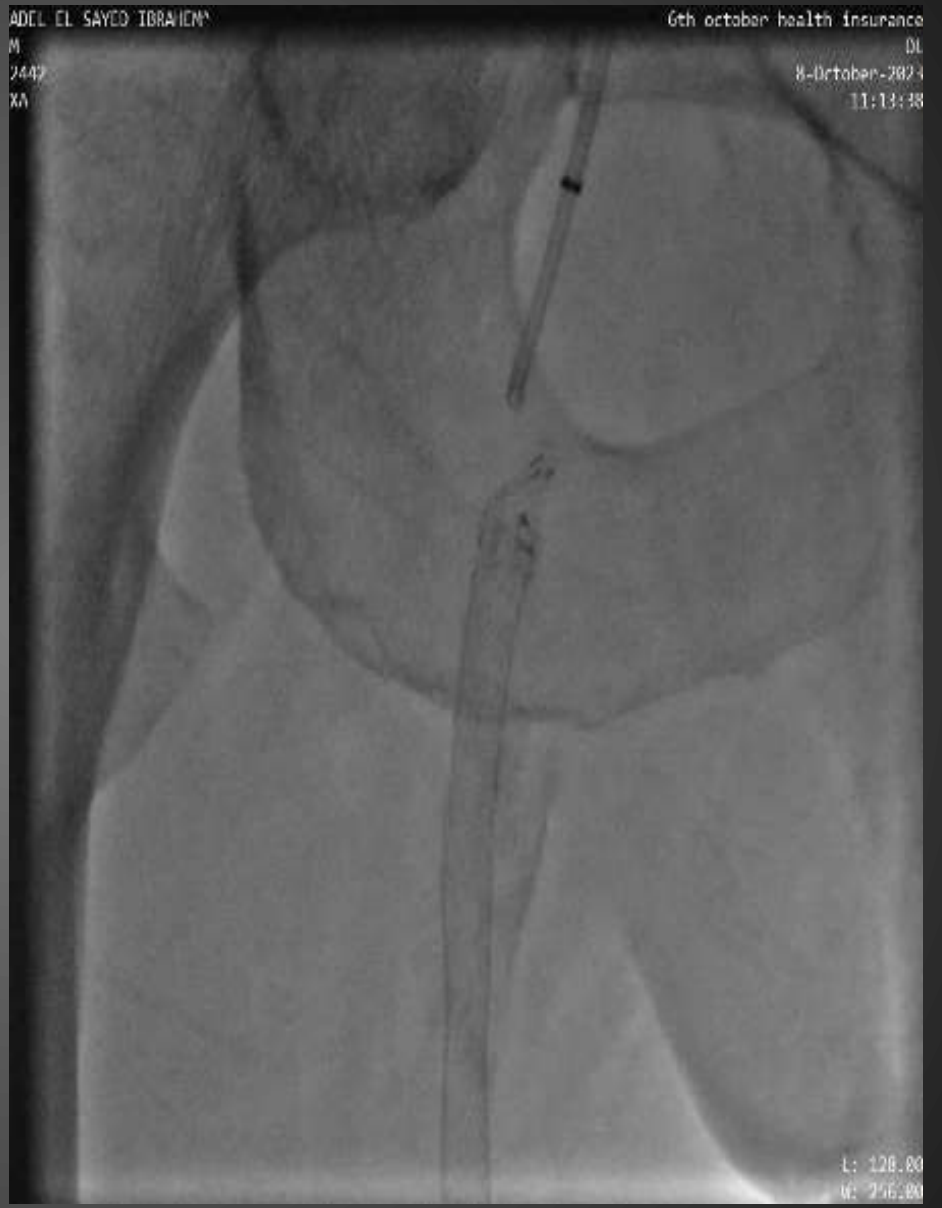
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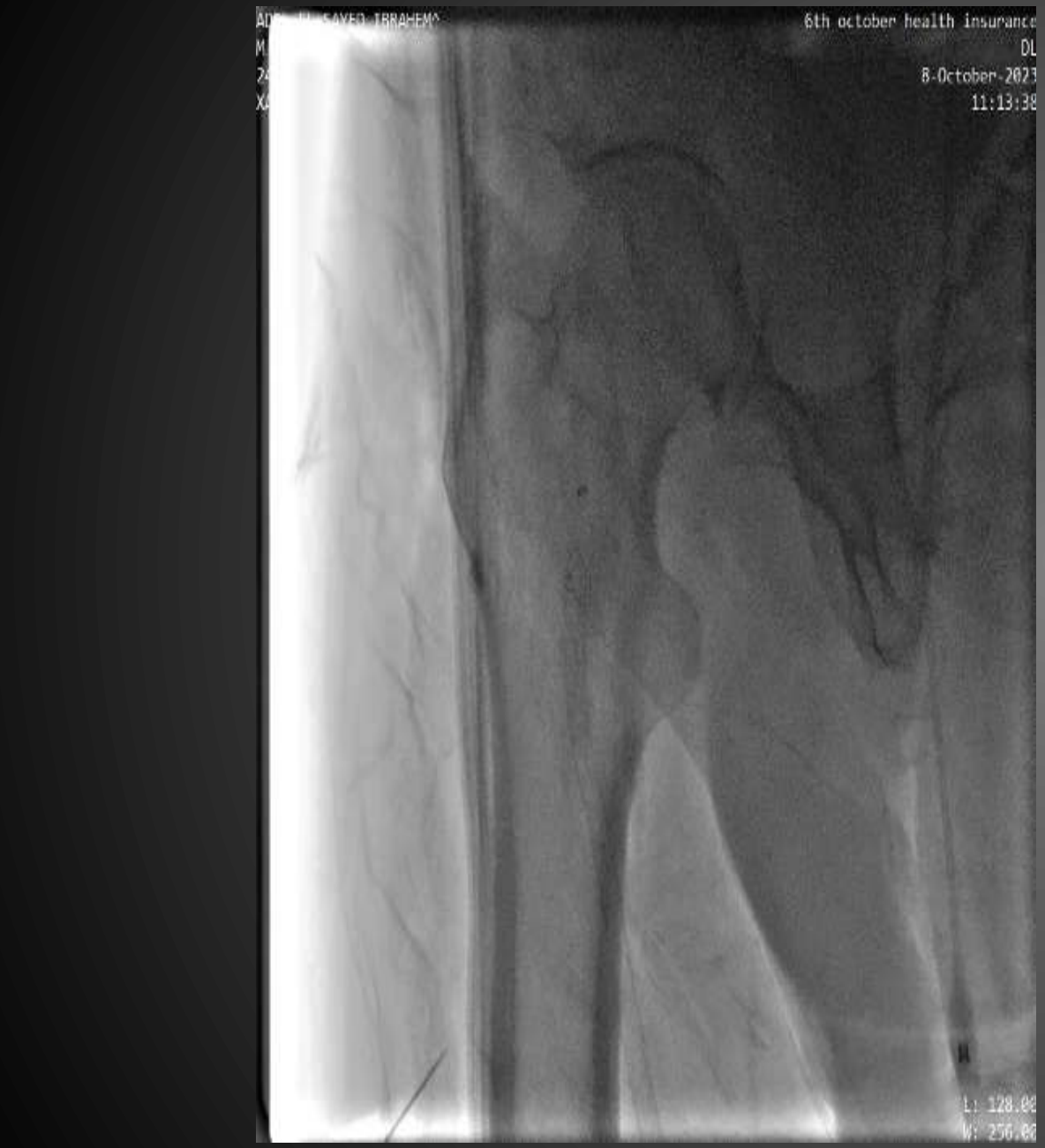
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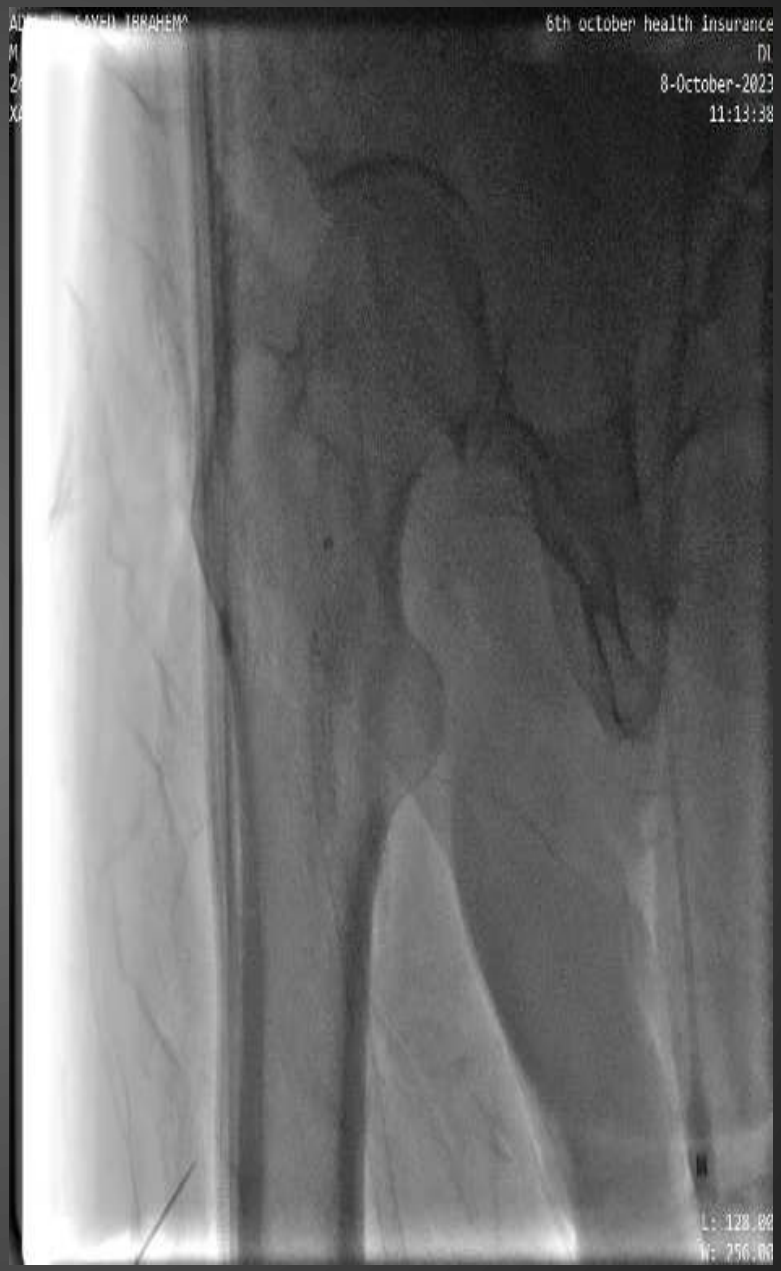
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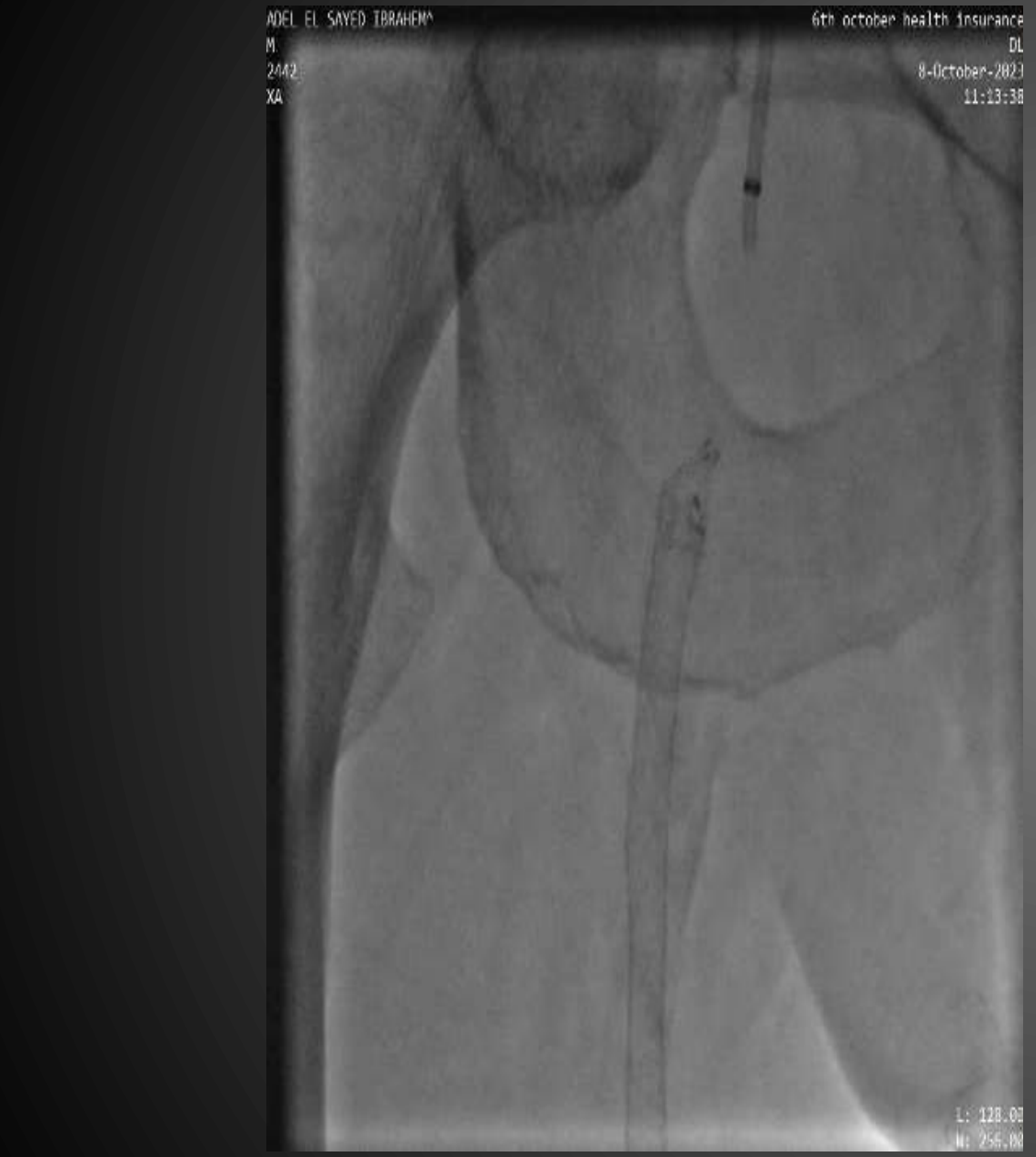
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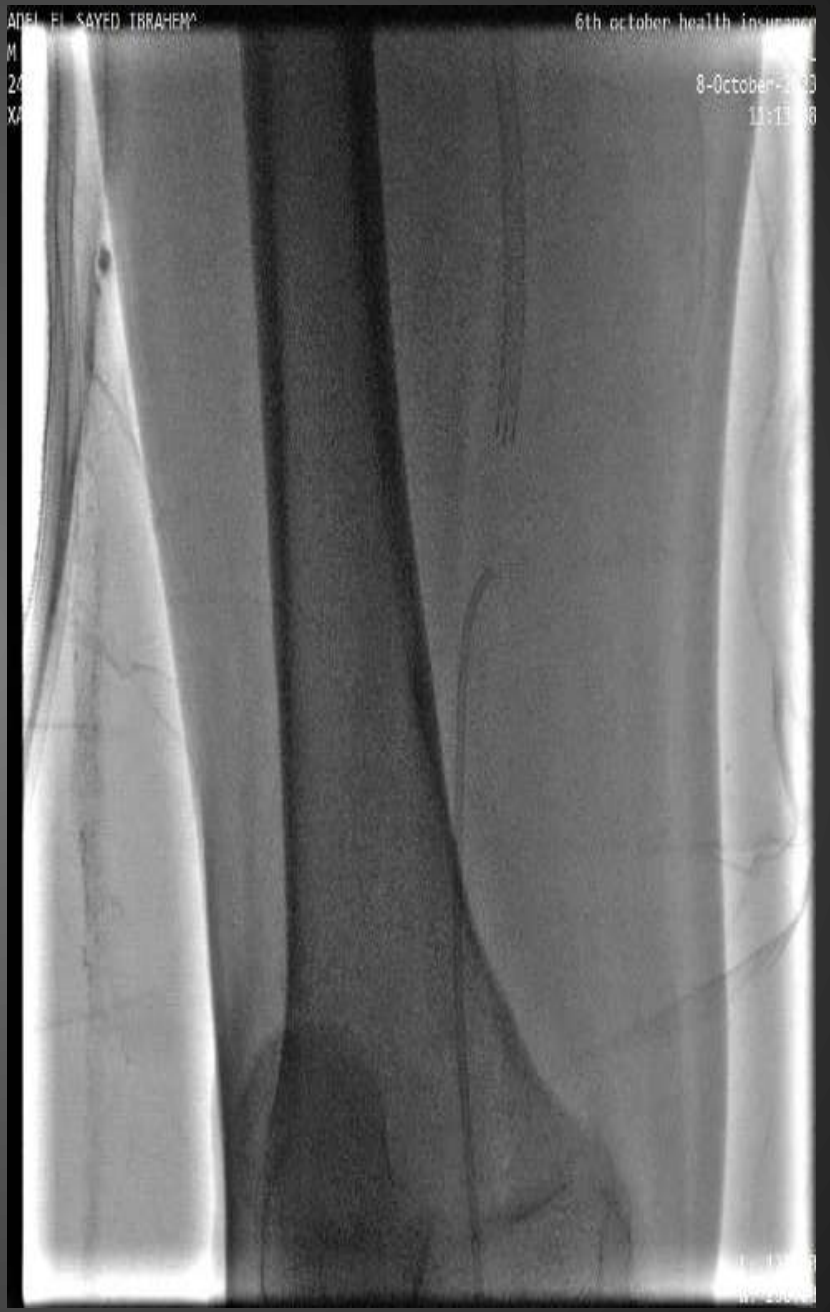
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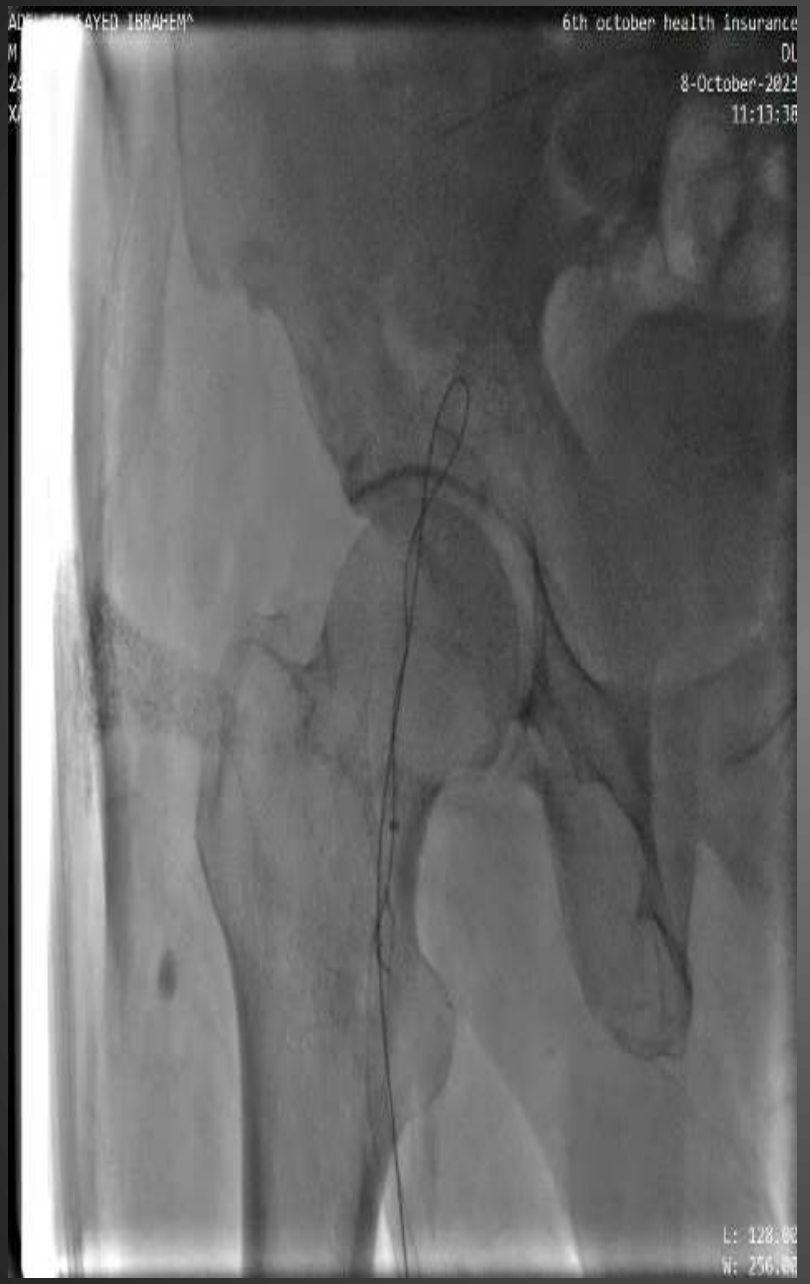
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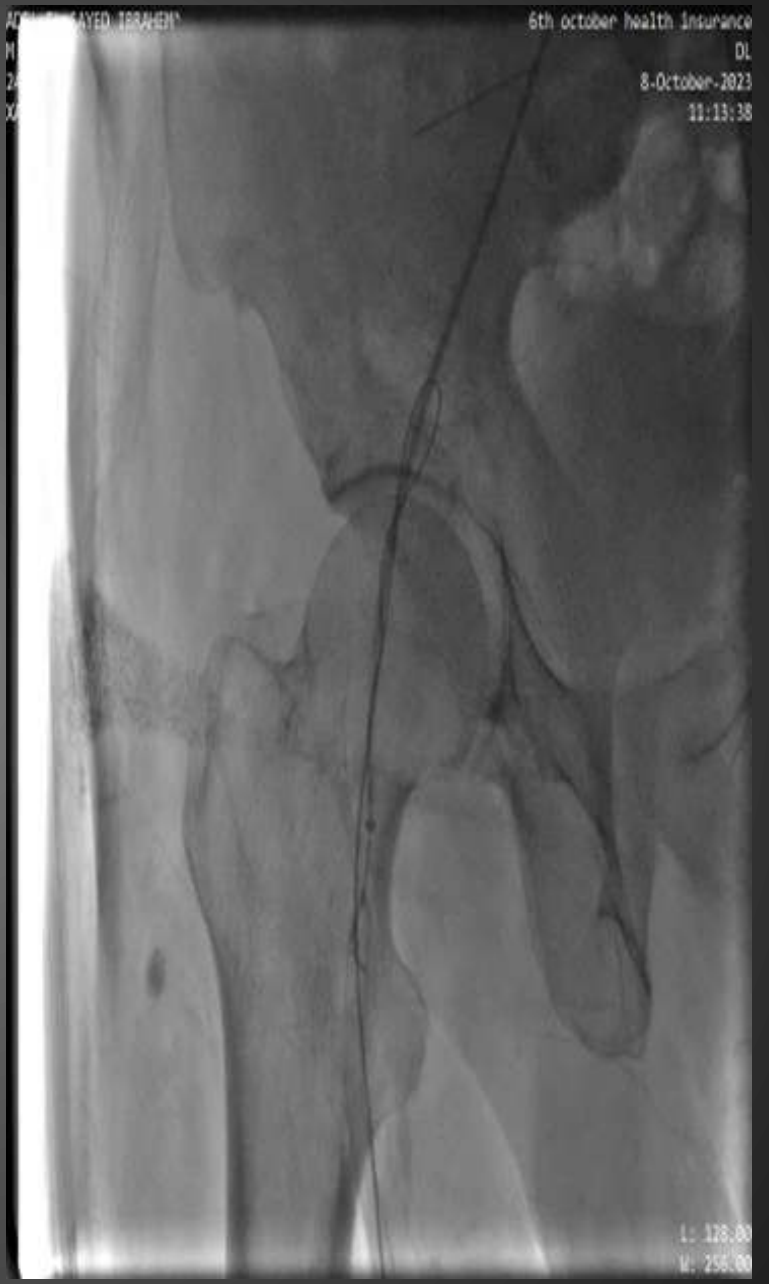
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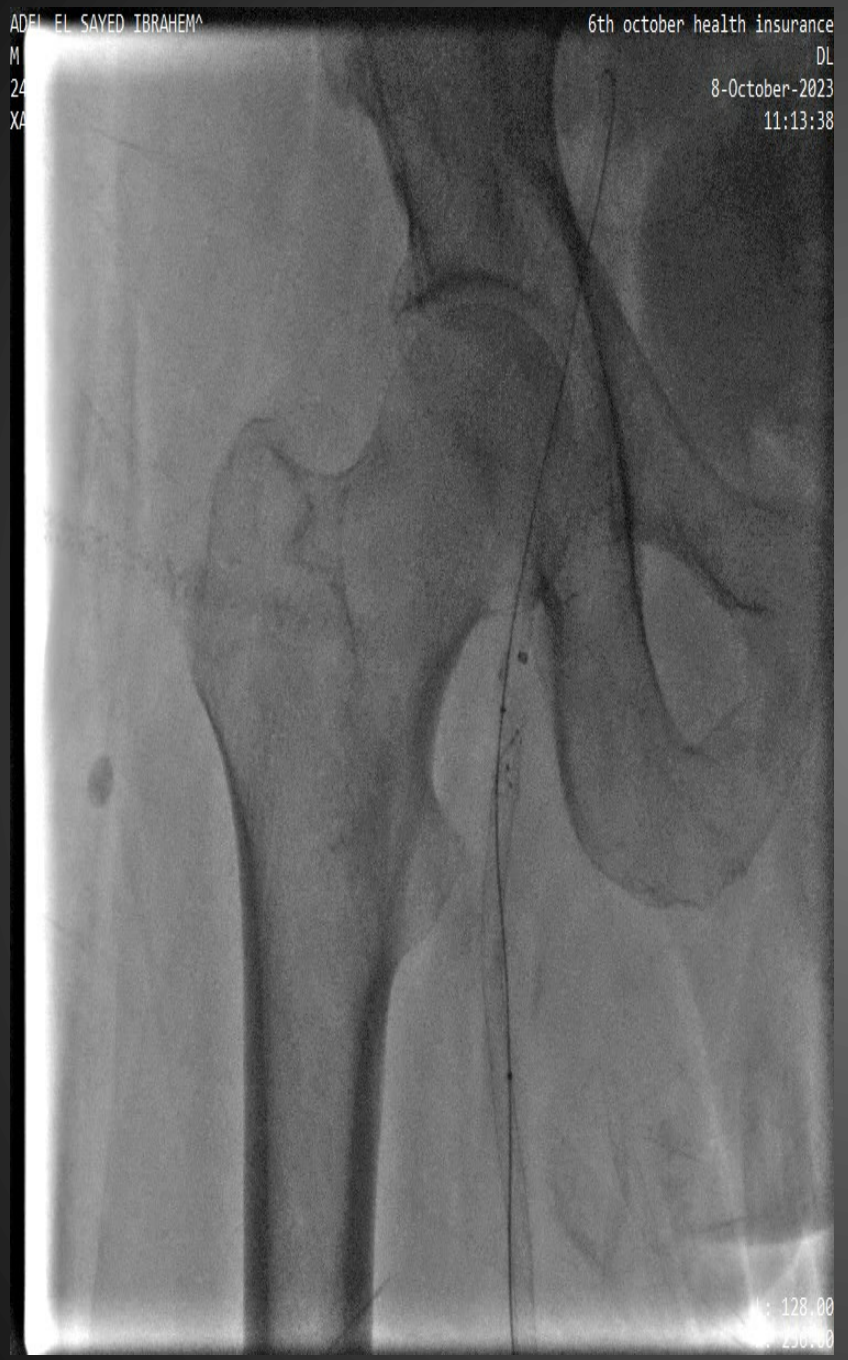
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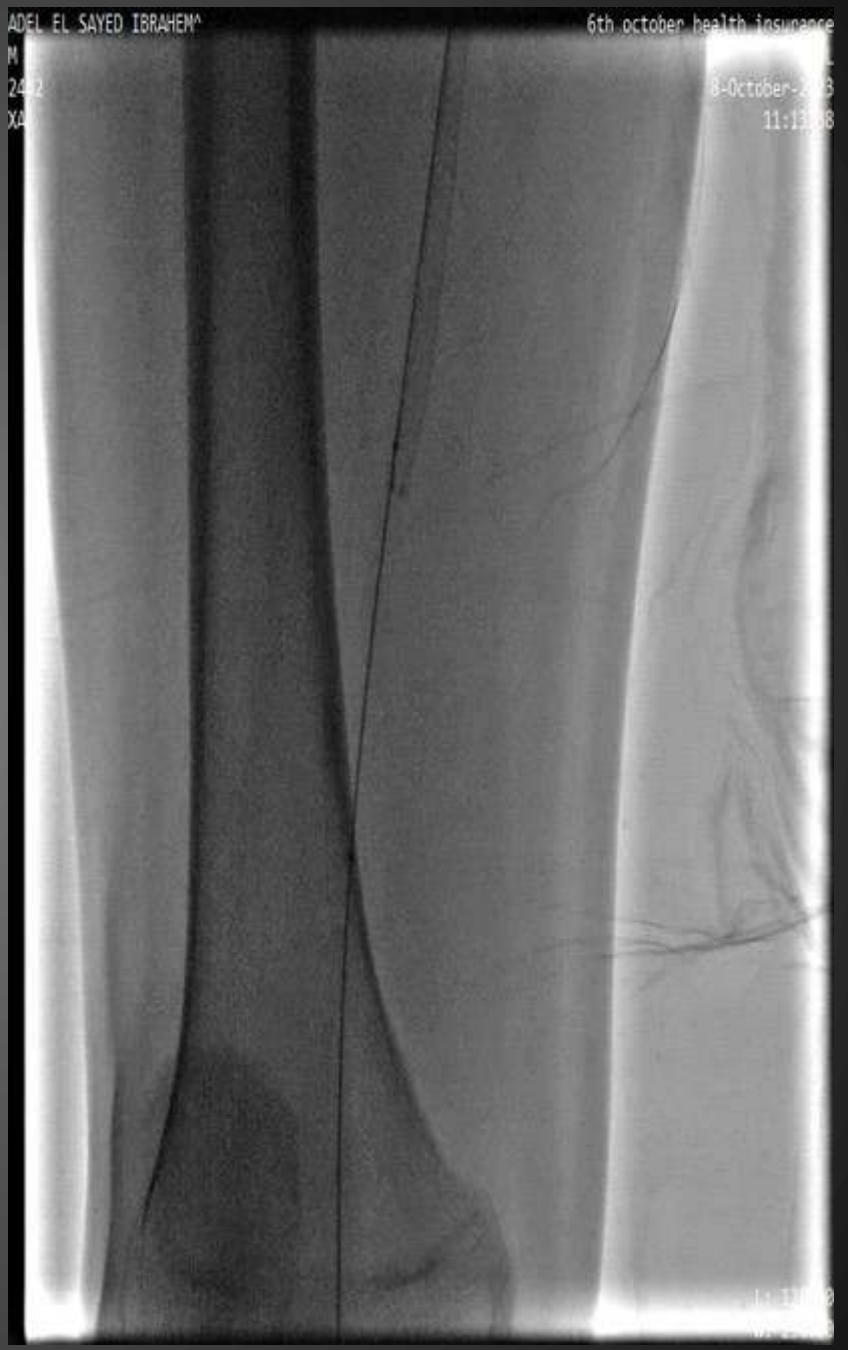
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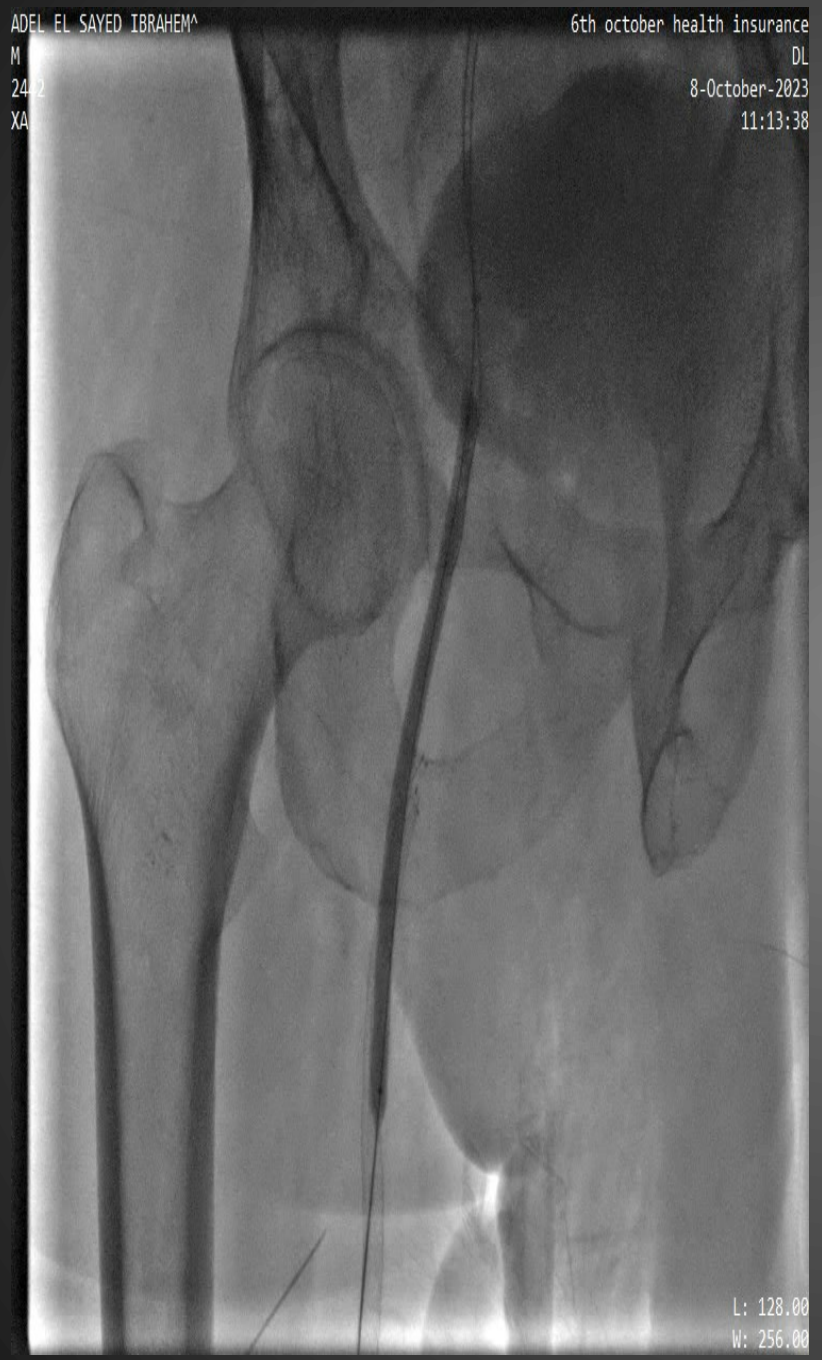
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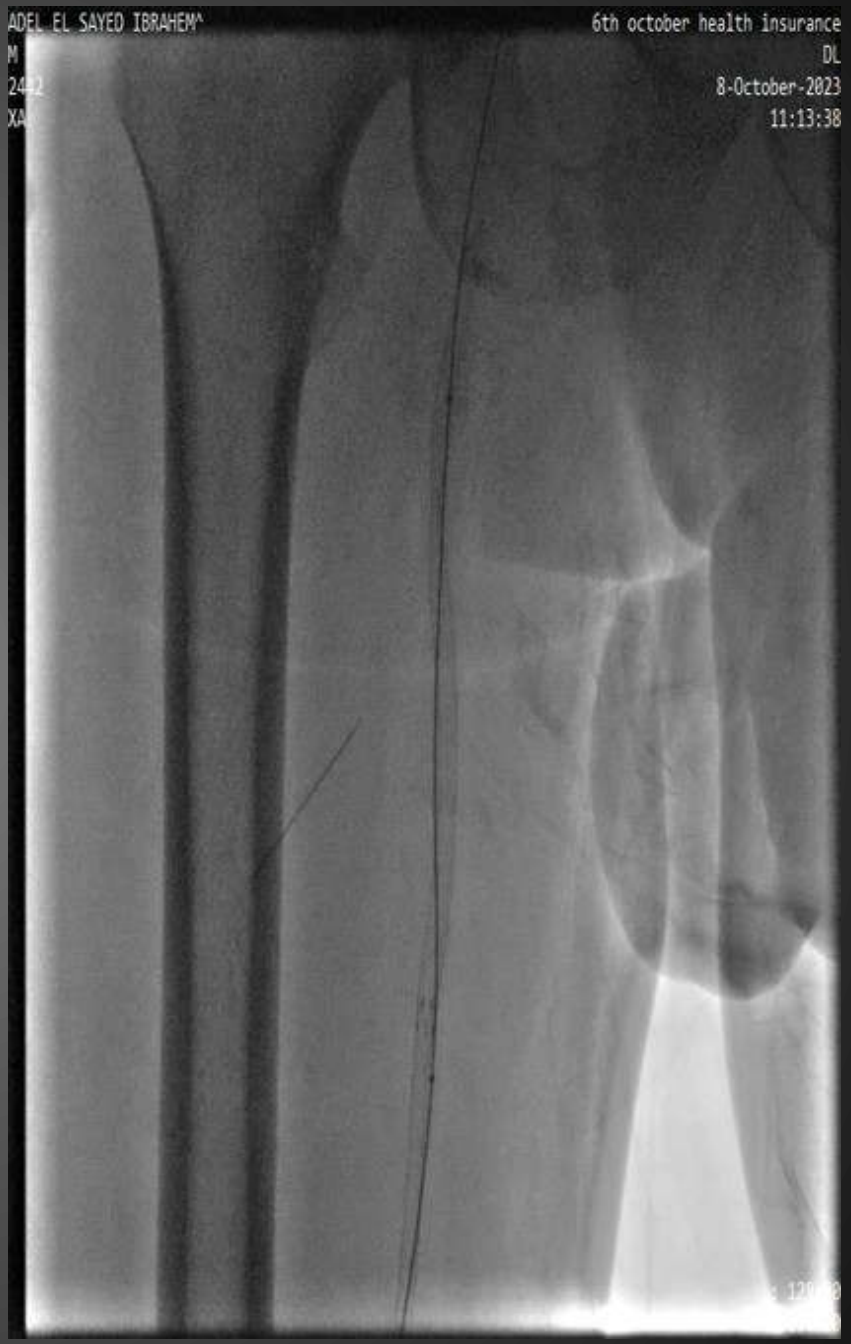
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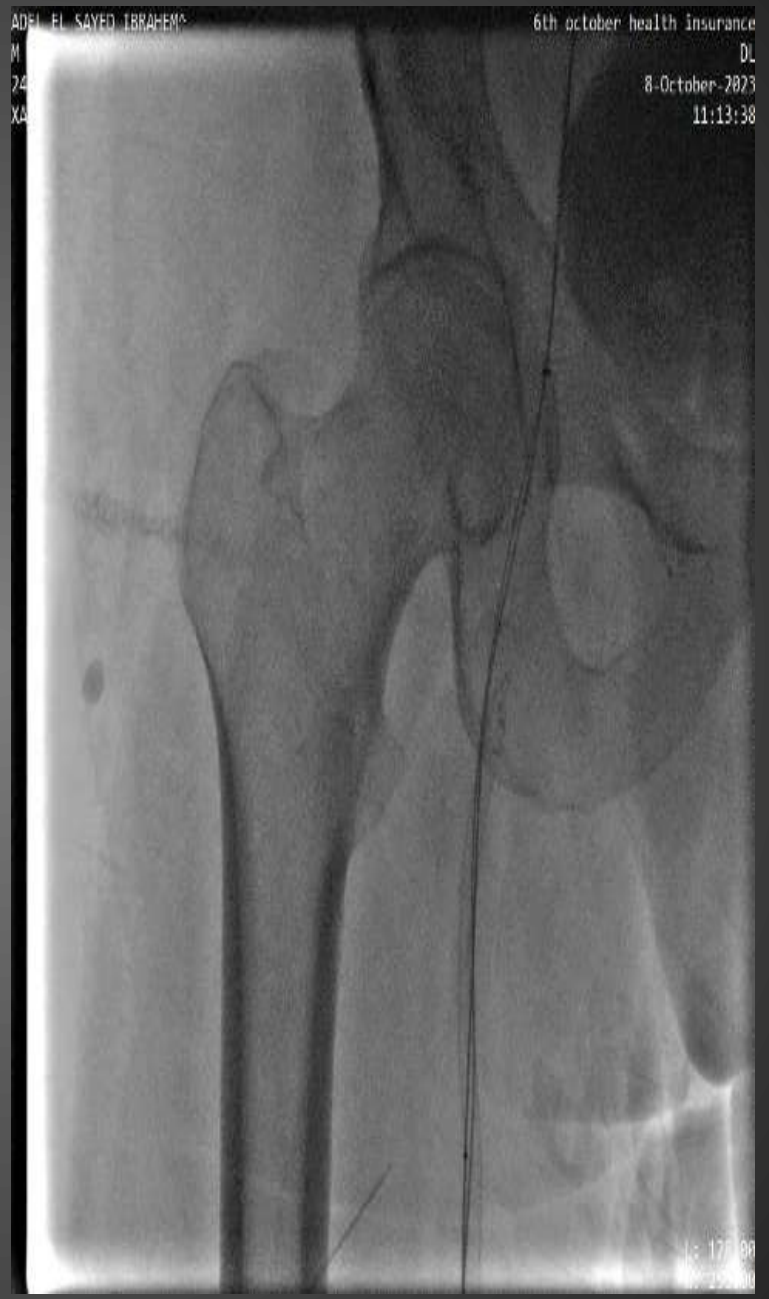
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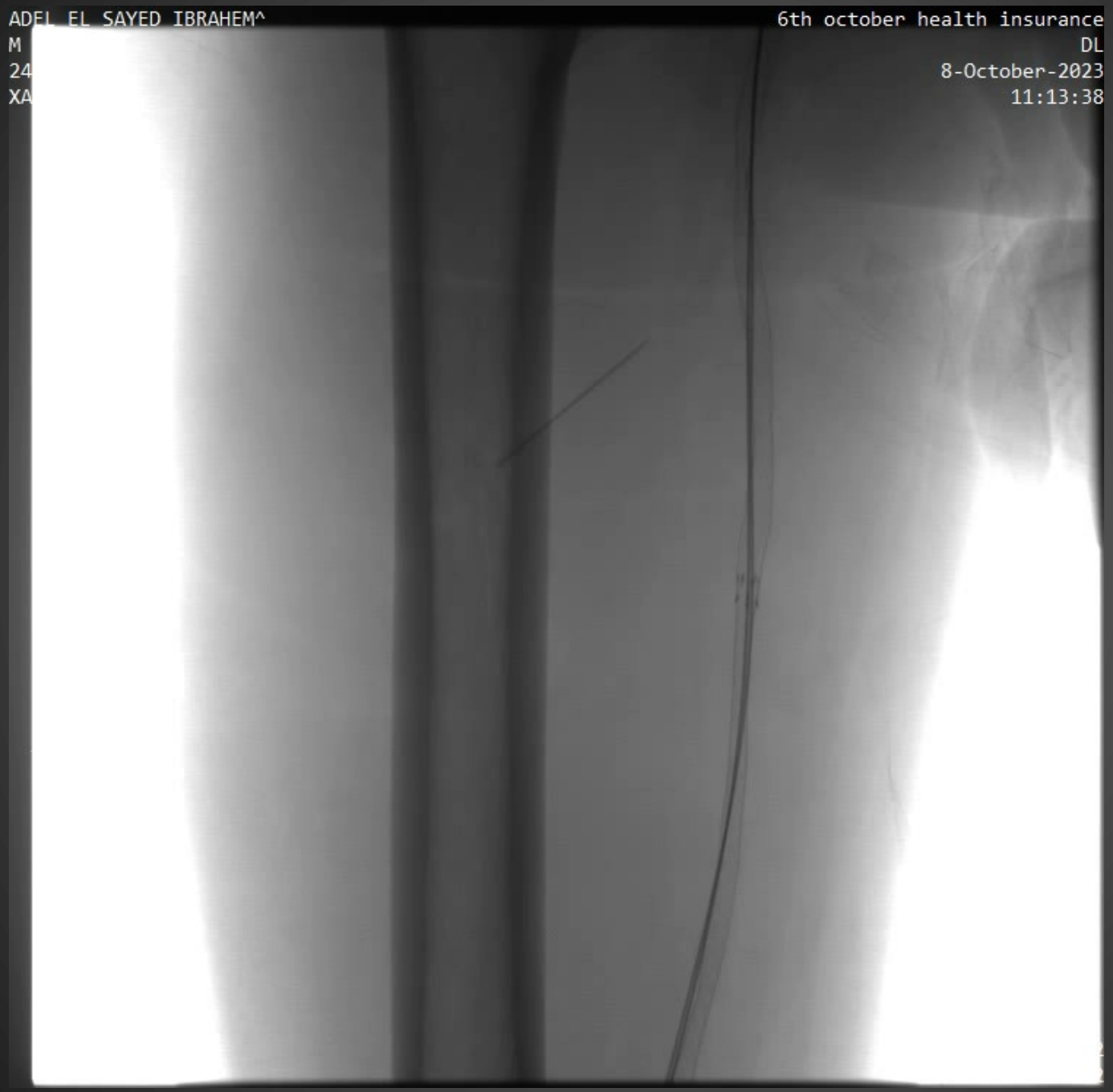
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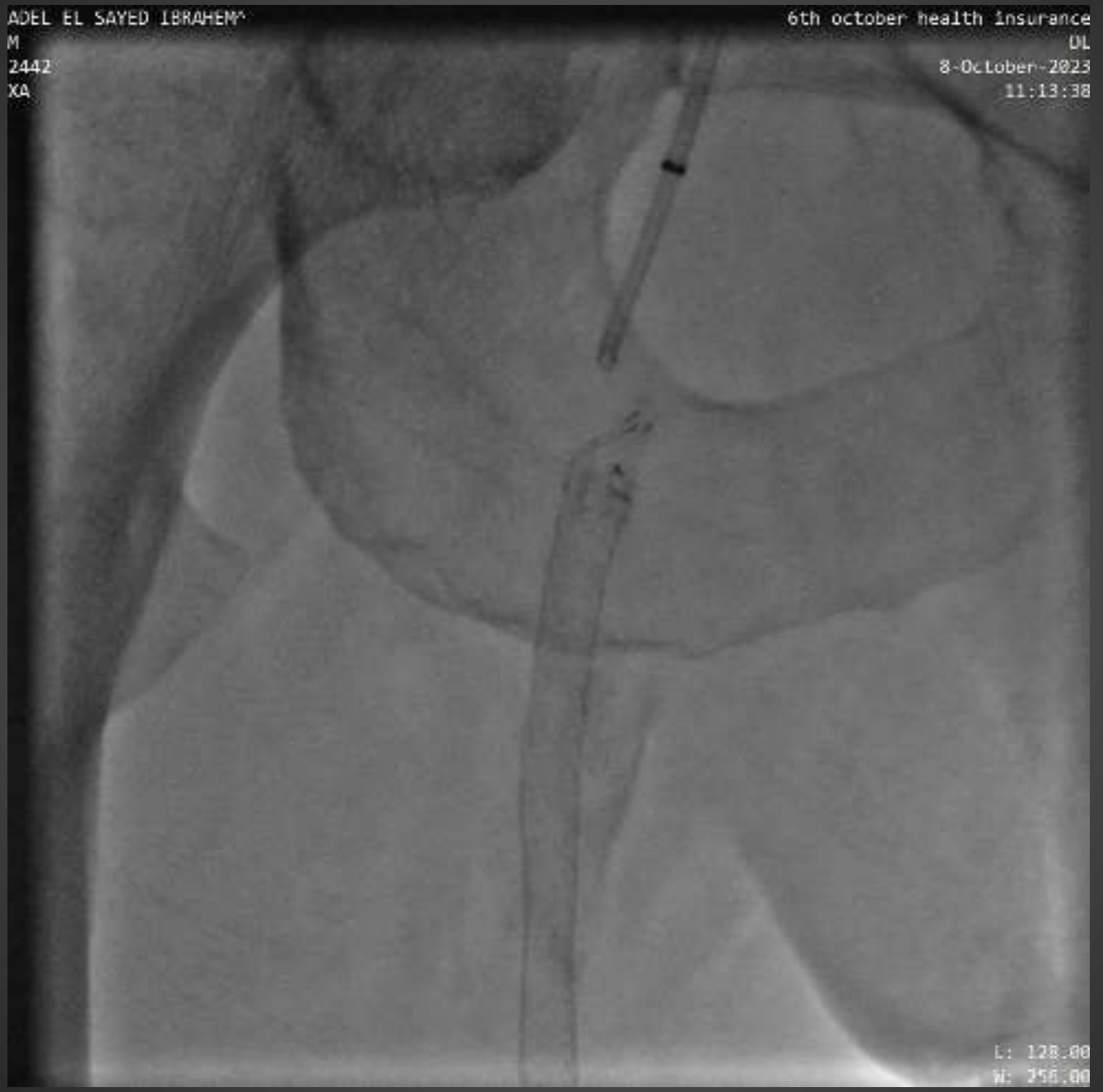
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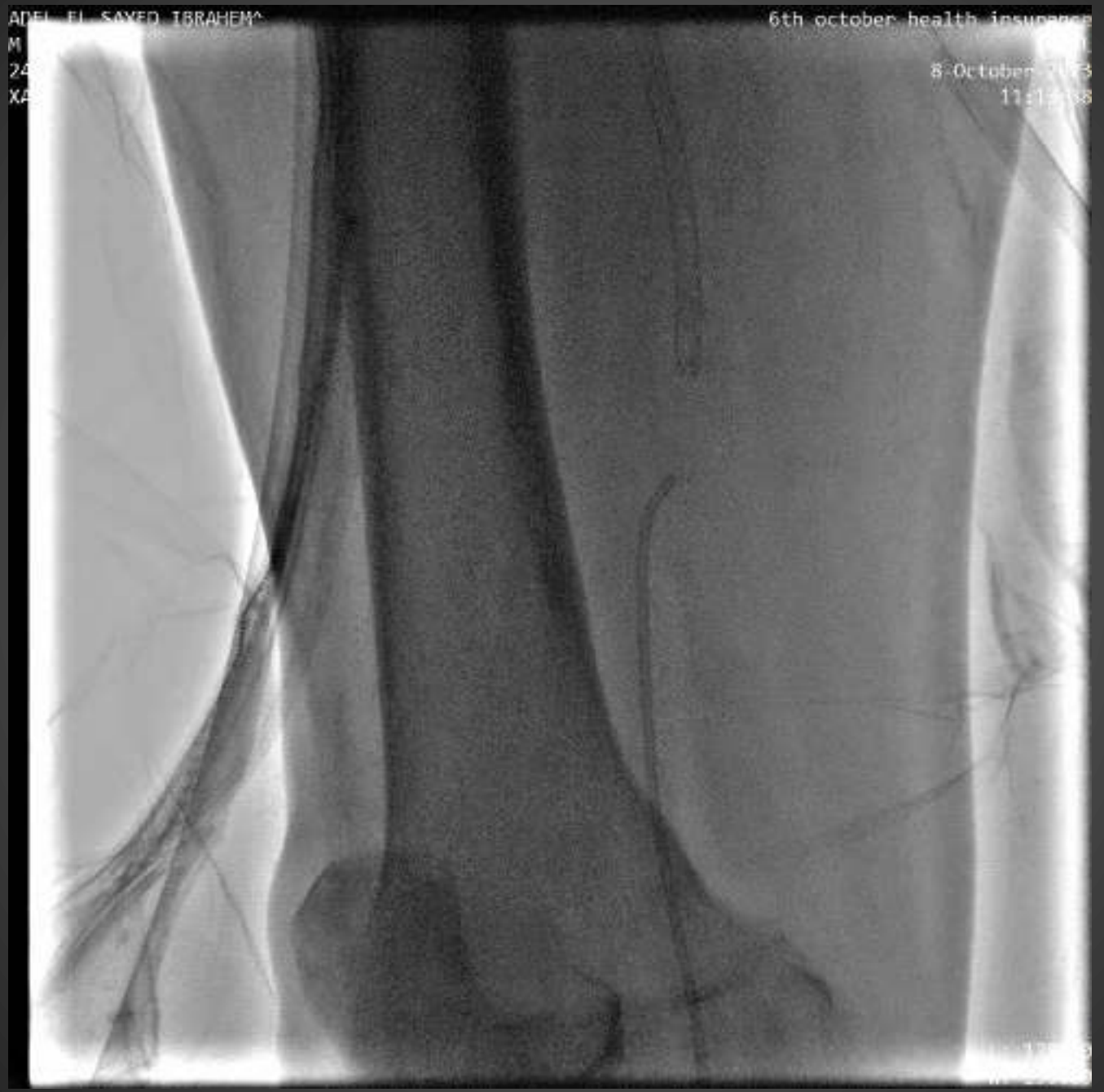
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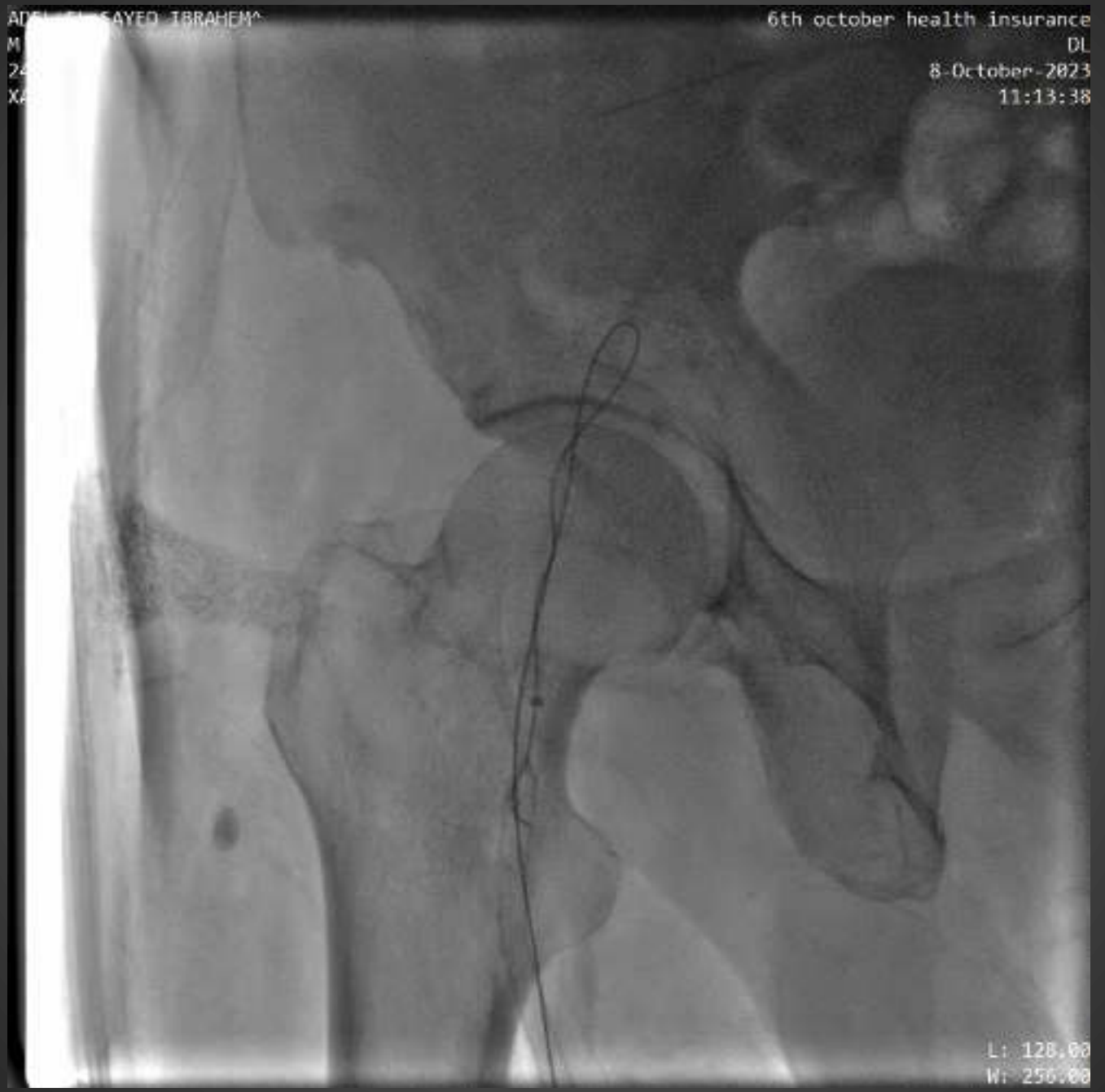
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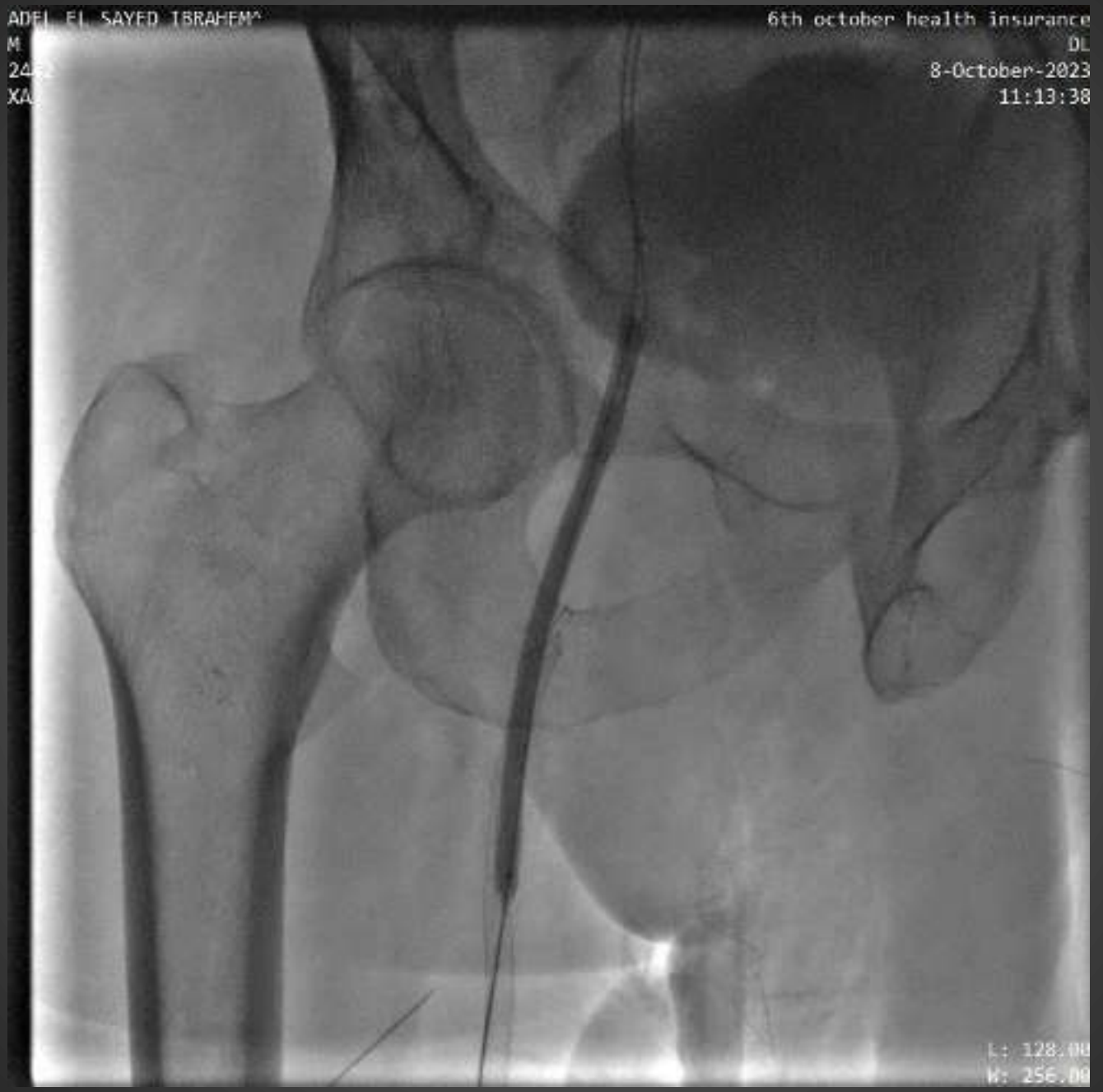
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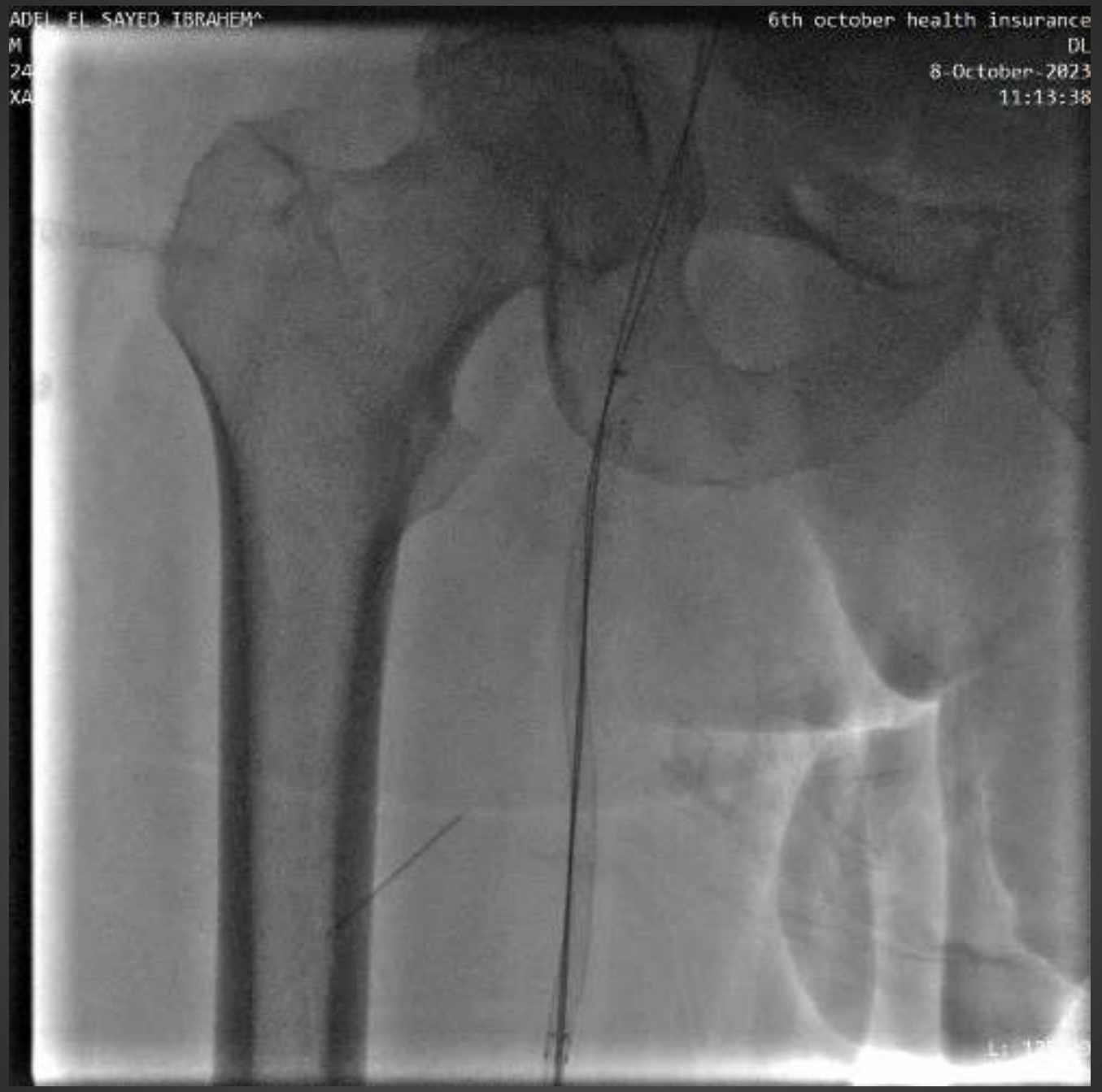
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finally

- Failure rate of crossing CTO SFA exceed 20% even with expert operators either antegrade , retrograde or combined antegrade retrograde.
- Know well when to stop and don’t waste the chance of surgical bypass .

THANK YOU