Novel Innovative Hybrid Technique to salvage acute limb ischemia in a Hostile Groin

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Disclosure

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I do not have any potential conflict of interest
CASE

54Y Morbidly Obese, Diabetic, Hypertensive Female
Right Acute Lower Limb Ischemia, Rest Pain, Foot Drop (Onset approx 10 Days Ago)
L/E: Cold Leg, Foot Drop, Loss Of Sensation, Ischemic Ulceration (Rutherford IV)
DOPPLER: Right EIA, CFA, PFA, SFA, POP & INFRA POP Embolic Occlusion
HOSTILE RIGHT GROIN

Hostile for Following reasons:
1. Morbidly Obese/Pannus.
2. Groin Skin excoriation at Site of Incision
3. Enlarged Lymph nodes on USG
4. Urinary Incontinence (foul smelling)

Worries:
1. Difficulty in Healing
2. Risk of Lymphorrhea
3. May Need Vacuum Assisted healing (VAC)
4. She stays in very remote area with no Paramedical
STEP 1: Trans-popliteal Approach For Embolectomy
Post Trans Pop Fogarty Pass
(Angiogram via Percut Contra CFA Access)
WHAT TO DO NEXT?

OPTIONS We Thought were:

• Leave the Profunda Occluded?

• Go for Transfemoral Embolectomy with risk in healing at the Surgical Site Incision risk of infection &/or lymphorrhea

• Do something Endovascularly
HYBRID APPROACH
OTW Embolectomy using a Hepatic Wedge Pressure Balloon
Final Selective Angiogram
ANIMATION
TAKE HOME MESSAGE

• CORRECT & TIMELY APPLICATION OF ENDOVASCULAR/HYBRID KNOWLEDGE CAN SOMETIMES BE VERY HELPFUL IN SITUATIONS WHERE CONVENTIONAL SURGERY HAVE LIMITATIONS “A Stitch in Time Saves Nine”.

• WE BELIEVE TECHNIQUE USED BY US MAY BE HELPFUL FOR REMOVAL OF ACUTE EMBOLUS FROM SIDE BRANCHES SUCH AS PROFUNDA/DEEP FEMORIS ARTERY or INTERNAL ILIAC ARTERIES PARTICULARLY IN SITUATIONS SIMILAR TO ONE WE ENCOUNTERED.
Finally She was able to Walk
THANK YOU
FOR
PATIENT LISTENING
• **CLINICAL FINDINGS & PROCEDURE:** A 54-year-old morbidly obese female presented to the emergency department with acute right leg ischemia (Rutherford Stage 4). US/Doppler examination showed embolic occlusion of the common femoral artery (CFA), profunda artery, and superficial femoral artery (SFA). The right groin was hostile for surgical incision due to obesity and overlying skin necrosis. In view of the hostile groin, a transpopliteal approach surgical embolectomy was performed in a hybrid OR. Once the CFA and SFA embolus was pulled out using a standard Fogarty balloon, left CFA percut access was taken and a crossover 6F sheath was placed. The right profunda was selectively cannulated followed by pulling of the embolus into the CFA using an OTW Fogarty balloon and was subsequently removed via transpopliteal surgical approach endarterectomy site.

• **CLINICAL OUTCOME:** Innovative and timely endovascular approach avoided groin incision with complete embolus removed. Thus we were able to avoid unhealthy groin and salvage limb except for established foot drop.

• **LEARNING OBJECTIVES:** Endovascular knowledge and its correct application can sometimes be very helpful especially in cases where conventional surgery have limitations. Our technique may be helpful for removal of acute embolus from side branches such as profunda/deep femoris artery or internal iliac arteries in cases of surgically hostile overlying skin.
TREATMENT OPTIONS?

• SURGICAL
• ENDOVASCULAR
• HYBRID