Endovascular treatment in patient with critical limb ischemia who has bi-lateral total occlusion from iliac artery to popliteal artery including puncture site

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Case

70’s years male
non-healing foot ulceration (Rutherford 5) and bi-lateral leg pain in rest

CT angiography showed bi-lateral iliac artery occlusion (red arrow). Right common femoral artery was slightly enhanced by co-lateral flow (yellow arrow head). Left common femoral artery locked completely occluded (blue arrow). CTA also revealed that long bi-lateral SFA total occlusion.

Step1: we punctured occluded common femoral artery under the duplex ultrasound guidance.

Step2: After deep insertion of 0.014 inch guidewire, intravascular ultrasound (IVUS) catheter was inserted. IVUS revealed that the tip of IVUS catheter exist at the extravascular space.

Step3: We re-punctured common femoral artery under the IVUS guidance which exist at the extravascular space.

Step4: We could confirm the tip of the puncture needle existed exactly within the occluded common femoral artery by extravascular IVUS and 0.035 inch guidewire was successfully inserted.

Step5: Guiding catheter was successfully inserted into the occluded artery.