

Our physicians represent the “best of the best”—nationally recognized as innovators and leaders in the fields of vascular and interventional radiology—advancing the field of amputation prevention.

Our commitment to minimally invasive, image guided, non-surgical procedures places our organization at the forefront of endovascular care.

We Save the Limbs that Others Can't.



**American
Endovascular**
& Amputation Prevention

November, 2021 CASE OVERVIEW

We prevent more than 80% of amputations in patients who were told there was no other option.

CLI CASE OVERVIEW - Joseph Shams, MD

Consultation—History

83-year-old female presents with gangrenous ulcerations of the right big toe, right plantar forefoot and the right heel. The patient had undergone revascularization at an outside institution 8 weeks ago with progression of the ulcerations to gangrene. The patient also complains of severe rest pain of the toes bilaterally.

Past Medical History:

- HTN
- ESRD on HD
- Hypothyroidism

Current Medications:

- Clonidine
- Clopidogrel
- ASA
- Nifedipine
- Hydralazine,
- Labetolol
- Velporo
- NTG

Physical Examination

- Right foot is cold to touch.
- Skin is dry and scaly in appearance with ruborous toes.
- Dry gangrene of the big toe, plantar forefoot, and heel.
- Delayed capillary refill of the toes >1 sec, and absent hair distribution.
- No edema is identified.
- Left toes are also ruborous.
- Pulse exam: right femoral pulse 1+, left femoral pulse 1-2+, right dorsalis pedis artery pulse is nonpalpable with a non-dopplerable signal. The right posterior tibial pulse is nonpalpable with a weak dopplerable monophasic signal. Left DP, PT nonpalpable with weak dopplerable monophasic signals.

Patient Plan

- Lab evaluation
- Arterial imaging/doppler
- Angiogram and planned revascularization

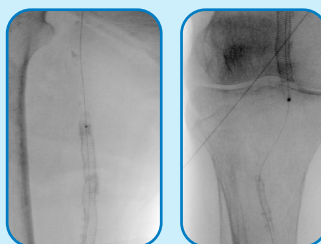


ABOVE: Pre-Treatment Images

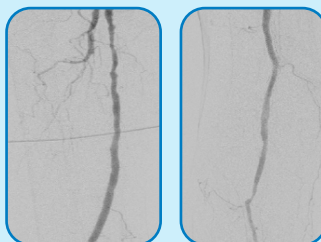


ABOVE: Aortogram/Pelvic Angiogram demonstrates high-grade, mid left external iliac artery stenosis

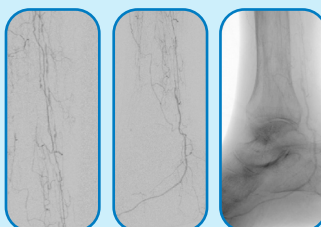
RIGHT LOWER EXTREMITY ANGIOGRAM



Scout Imaging demonstrates overlapping metallic stents extending from the mid SFA through the mid popliteal artery. In addition, a drug eluting stent is identified within the tibioperoneal trunk.



Right Lower Extremity Angiogram demonstrates severe proximal SFA stenosis as well as mid and distal popliteal artery stenoses within and beyond overlapping stents. Occlusion of the TP trunk beyond the stent is noted.



Distal Runoff is via collaterals in the calf. The posterior tibial artery is reconstituted above the ankle and supplies the lateral plantar artery within the foot.

"Trusting Dr. Shams after many years experience with him during my procedure, one of the best in New York...Would not choose any other doctor to take care of me...Dr. Shams is a highly professional, caring, and trustworthy doctor. I have undergone four vascular procedures with him, and have been very satisfied with both the doctor and his terrific team...Dr. Shams is such an incredible doctor! I would highly recommend him 100% of the time. He was very helpful, kind, and understanding, I couldn't have asked for a better doctor."

Patient Reviews

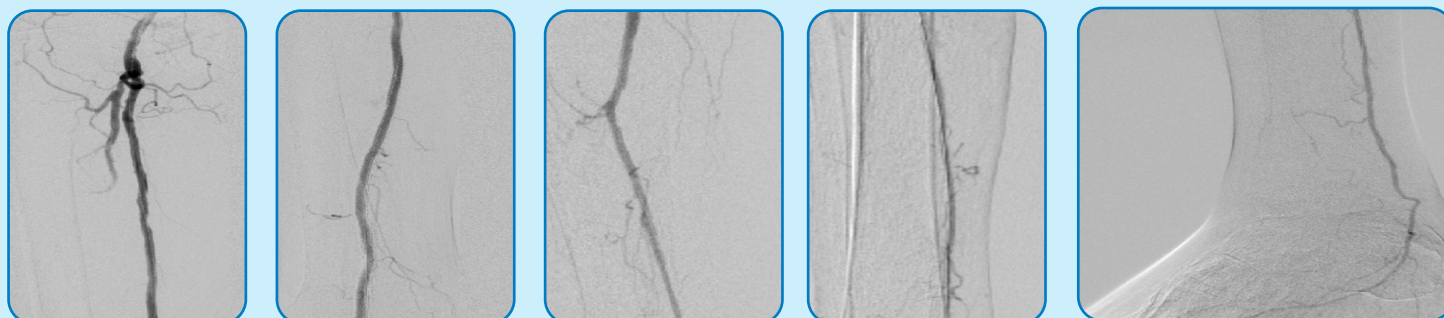
No patient should undergo an amputation without seeing us first.

Intervention



ABOVE: A 7 mm X 4 cm SMART non-covered stent was deployed across the stenosis and dilated with a 6 mm X 4 cm gladiator balloon (Images 1-4). The PT occlusion was crossed with a 0.014 in. command guidewire. IVUS exam performed with a 0.014 in. Volcano IVUS demonstrating no thrombus within the stents or run off vessels. Laser atherectomy of the SFA, popliteal and PT lesions was performed with a 1.4 mm SPECTRANETICS laser. Supplemental PTA of the SFA and popliteal artery stenoses was performed using a 5 mm saber balloon. Supplemental PTA of the TP trunk and PT stenoses was performed using 2.5 mm and 3 mm saber balloons. (Images 5-6).

BELOW: Post Intervention Images



Patient Follow-up

- The patient experienced immediate increased sensation and warmth in the foot.
- She was kept on aspirin 81 mg and Xarelto 2.5 mg BID for 3 months.
- Gangrenous ulcerations completely healed over 2 months (right).
- Left lower extremity intervention was performed at a later date.



Discussion

- Always check femoral pulses prior to intervention; if asymmetry is identified suspect iliac artery lesion even if ultrasound exam equivocal.
- Attempt to re-establish straight line flow to the area of the wound to optimize healing potential.
- IVUS exam is very helpful in characterizing lesions, determining if thrombus is present and sizing vessels for treatment.
- Aggressive intervention can result in complete healing in some advanced cases.

Breakthrough, Non-surgical Limb Saving Treatments performed in a fully equipped outpatient center—

We believe in "TOE AND FLOW" collaboration of care.

Podiatrists treat the toe; we treat the flow.

After restoring blood flow, even in the most complex cases, we collaborate with referring doctors to ensure all patients are returned to their podiatrists for continued treatment.

Highly Trained, Board Certified Endovascular Specialists—



Joseph Shams, MD - Interventional Radiologist

Dr. Joseph Shams has a long and distinguished career. His technical skill, dedication to patients and history of innovation has earned him a spot on the *Castle Connolly Top Doctors List* for the New York Metropolitan area for an impressive five consecutive years. He is a graduate of the State University of New York-Health Science Center in Brooklyn and completed a fellowship in vascular and interventional radiology at Yale University School of Medicine. Dr. Shams is a widely published authority on interventional radiology, with papers appearing in a range of medical journals. He is a member of the Society of Interventional Radiology and the Radiological Society of North America.

**To refer a patient to any of our convenient centers, call:
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