

CASE

VIGNETTES

@2023 - 2024

Department of
**VASCULAR &
ENDOVASCULAR
SURGERY**

EMPOWERING
CIRCULATION,
ENRICHING LIVES.



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Dr K RAJA,

MBBS, DNB (General Surgery), MCh (Vascular Surgery)
Vascular, Endovascular and Renal Transplant Surgeon



Dr SURESH VISWANATHAN,
MBBS, MBA (HCA)
Managing Director



Vascular and endovascular surgery are specialised branches of medicine focused on diagnosing, treating, and managing conditions affecting the blood vessels—arteries, veins, and lymphatic system through both open surgical procedures and minimally invasive techniques. These subspecialties are crucial in addressing a wide range of vascular disorders, from common conditions like peripheral artery disease (PAD) to more complex issues such as aortic aneurysms, deep vein thrombosis (DVT), and carotid artery disease.

Vascular Surgery has traditionally involved open surgical techniques to treat conditions that affect the blood vessels. Endovascular Surgery is the newer, more modern, minimally invasive alternative that leverages advanced cathlabs and the use of stents, balloon angioplasty, and embolisation to treat vascular conditions like aneurysms, arterial blockages, or malformations with just an incision in the groin or wrist. This approach often results in less trauma, quicker recovery, and reduced complication risks compared to traditional open surgery.

Surgeons can offer personalised treatment plans based on the patient’s condition and overall health by integrating vascular and endovascular techniques. These treatments play a vital role in preventing complications such as stroke, limb loss, and cardiovascular disease, significantly enhancing outcomes and quality of life.

As technology continues to advance, both vascular and endovascular surgery have seen remarkable improvements in precision, safety, and recovery times, making them indispensable in modern healthcare. Our hospital has been a leader in vascular and endovascular surgery in the region, and I am happy to present the Department of Vascular & Endovascular Surgery’s Case Vignettes for the last two years, highlighting the wide variety of cases operated at our institution.

I would like to highlight something that is often overlooked. In a multi-specialty hospital like ours, Vascular Surgery is an enabler department. Having a vascular surgeon enables other surgeons to undertake more complex surgeries that would otherwise be deemed too risky.

I commend Dr K Raja for his hard work to collate these cases and present them in a simple yet understandable way that will benefit everyone. This book goes beyond the printed word, and I encourage everyone to scan the QR Code or click on the link for each case to visually experience them in further detail. Dr Vijay Sadasivam has served as editor, and this book has turned out to be better with his efforts. The media team at SKS has once again demonstrated their excellence, and the book that you hold in your hands is proof.

I hope you find this book useful. We plan to publish more in the future across all our specialty departments.



Dr VIJAY SADASIVAM, DMRD, DNB.
Senior Consultant & Head, Department of Radiology.
Deputy Dean, Academics.
SKS Hospital & Postgraduate Medical Institute.

Vascular surgery and endovascular procedures play a critical role in managing vascular emergencies in all tertiary care multispeciality hospitals in our part of the country. These procedures are vital for addressing severe conditions that affect the vascular system, such as arterial blockages, aneurysms, and traumatic injuries.

In a multispeciality postgraduate teaching hospital like SKS Hospital in Salem, the availability of vascular surgery and endovascular procedures significantly enhances our ability to provide comprehensive emergency care. These procedures allow for the rapid and effective treatment of life-threatening conditions that could otherwise result in high morbidity and mortality. For instance, in cases of acute limb ischemia or traumatic vascular injuries, timely vascular interventions can save limbs and lives, reducing long-term disability and improving patient outcomes.

Endovascular procedures, which involve minimally invasive techniques, offer several advantages over traditional open surgery. These include reduced recovery times, lower risk of infections, and lesser pain, which are particularly beneficial for the elderly and those with multiple comorbidities. This approach not only aligns with the global shift towards minimally invasive medical treatments but also addresses the local needs by reducing hospital stays and healthcare costs, thus improving the overall efficiency of healthcare delivery in the community.

Having these advanced vascular treatment facilities in our hospital promotes better training and skill development for our postgraduate students across various medical and surgical specialities. It fosters an environment of learning and adaptation to new technologies, ultimately enhancing the quality of care provided to the community. The case vignettes portrayed in this collection give a comprehensive overview of the variety of conditions that are seen on a daily basis in SKS Hospital.



Dr Raja K,

DNB (Gen. Surgery), M.Ch (Vascular Surgery)
Consultant Vascular & Endovascular Surgeon

MBBS - Stanley Medical College, Chennai (2004)
DNB (General Surgery) - Southern Railways Headquarters Hospital, Chennai (2012)
MCh (Vascular Surgery) - Madras Medical College, Chennai (2016)

Consultation and Treatment services provided for the following

CHRONIC RENAL FAILURE

AV Fistula Creation, AV Graft, Permcath Placement & Reposition, Fistula Steal Treatment, Surgical And Endovascular Fistula Salvage.

POST AVF PSEUDOANEURYSM

Repair / Ligation Kidney Transplantation

VARICOSE VEINS

Radiofrequency / Laser Ablation And Foam Sclerotherapy

DEEP VEIN THROMBOSIS

CDT / IVC Filter Placement

MAY THURNER SYNDROME / POST PHLEBITIS SYNDROME

Venous Stenting.

ACUTE LIMB ISCHEMIA

Thrombectomy / Embolectomy

PERIPHERAL ARTERIAL DISEASE & DIABETIC FOOT ULCER

Peripheral Bypass / Angioplasty And Stenting

THORACIC OUTLET SYNDROME ARTERIAL AND NEUROGENIC

Cervical Rib Excision, Brachio Neurolysis And Limb Revascularization.

NECK, ABDOMEN & ALL EXTREMITY VASCULAR INJURIES

Surgical Reconstruction / Endovascular Intervention

ABDOMEN AORTIC ANEURYSM & PERIPHERAL ARTERY ANEURYSMS

Surgical Repair / Endovascular Reconstruction (EVAR)

CAROTID ARTERY DISEASE

Endarterectomy / Carotid Artery Stenting

RENOVASCULAR HYPERTENSION

Angioplasty & Stenting / Surgical Revascularisation.

Our Founders

Our Management



Mr S K SENKODA GOUNDER,
Founder



Mrs S PERUMAYEE AMMAL,
Founder



SREE VASANTHA
BSc, MSc, MPhil
Chairman



Dr SURESH VISWANATHAN
MBBS, MBA (HCA)
Managing Director



Mr PRATHEEP VISWANATHAN
BE
Executive Director



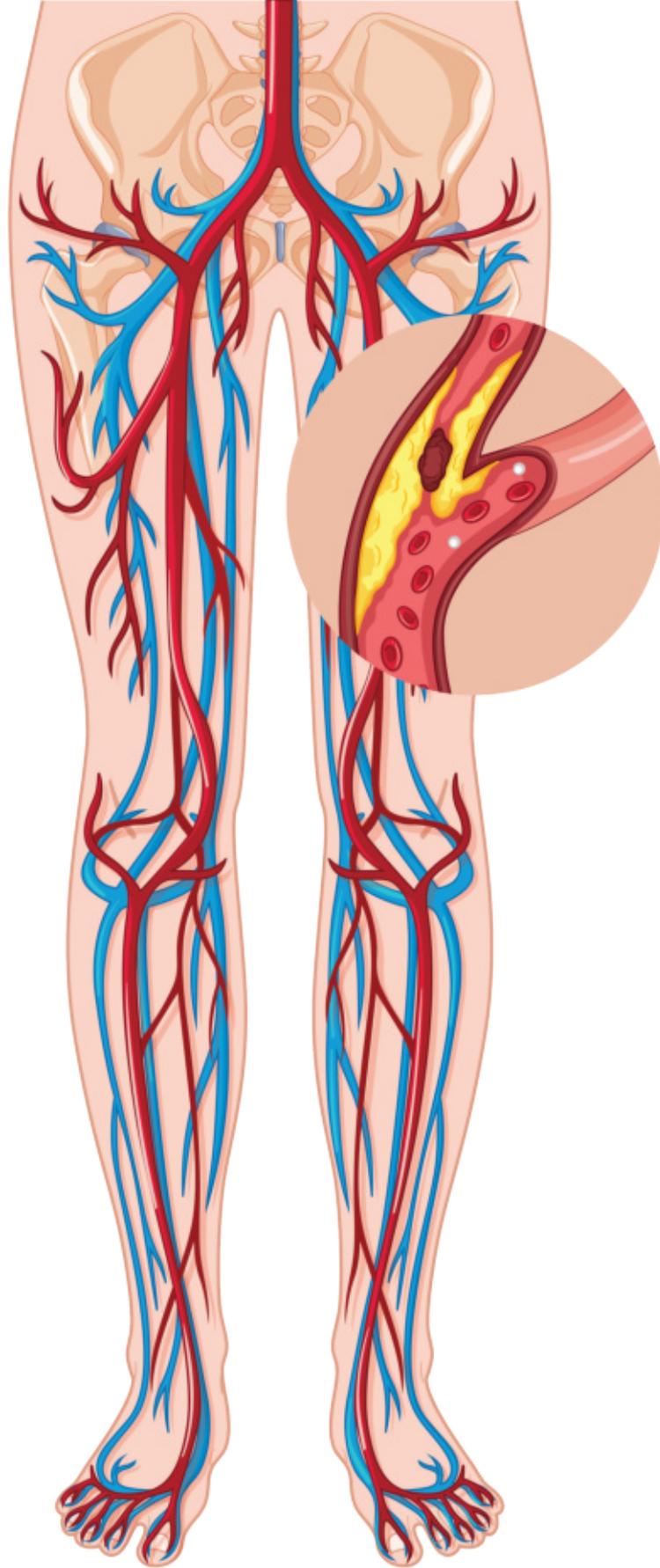
Dr SHIRPI MANI
MBA, Ph.D
Chief Executive Officer

Recognising the lack of quality healthcare and seeing the public suffering, Mr S K Sengoda Gounder founded SKS Hospital in 1987, the first Multi-speciality hospital in the region. He has been our guiding light and his values of integrity, high moral standards, hard work and above all else, humility & compassion to fellow beings will continue to be at the core of everything we do.

His words and actions have uplifted innumerable people and we strive to continue his legacy of philanthropy.

His life was a blessing, his memory a treasure and he is loved beyond words and missed beyond measure. We honour him everyday through our continued service to the public.





A BRIEF OVERVIEW OF PERIPHERAL ARTERIAL DISEASE PATHOPHYSIOLOGY

Peripheral arterial disease (PAD) is a circulatory problem that causes a reduction in blood flow through arteries. This typically reduces blood flow downstream of the stenosis or occluded arterial segment, manifesting as calf or thigh claudication pain (in the lower extremity), effort-associated pain (in the upper extremity), or ulcer or gangrene of digits in advanced form.

PAD usually involves atherosclerotic disease in the abdominal aorta, iliac, and femoral arteries. In the early stages of PAD, the diseased arteries compensate for the plaque buildup by dilating to preserve flow through the vessel, but in the late stage, the artery cannot dilate any further, producing significant impairment of perfusion to the extremity.

Acute ischemia of the leg and/or upper extremity can be caused by emboli either of cardiac origin or from atherosclerotic disease of the major vessels. Emboli tend to lodge at sites of arterial bifurcation and at points where vessel branches have an abrupt take-off. The femoral artery is the most common site for emboli, followed by the iliac arteries and the popliteal arteries next in frequency.

The pathophysiology of chronic ischemia differs from acute ischemia. The hemodynamic consequences depend on the degree of arterial narrowing in the former. In a chronic ischemic vascular bed, owing to the progressive narrowing of the artery, the blood shifts to smaller arteries which run parallel to the diseased artery. Although the collateral flow preserves distal perfusion, these smaller vessels do not carry as much blood as the main artery. The muscles of the lower extremity require increased blood flow during ambulation to meet the increased oxygen requirement (for aerobic metabolism). Patients with PAD reach a point during walking at which collateral flow is maximised and cannot augment the flow any further than the fixed resistance in it. This supply-demand mismatch causes ischemia in muscles, which manifests as pain, cramping and fatigue. This cycle of blood flow restriction, increased energy demand and muscle ischemia defines the pathophysiology of claudication due to PAD.

When PAD progresses to a more severe form (increased degree of narrowing or disease at multiple segments of an artery or complete occlusion), blood flow cannot meet the ischemic limb's resting metabolic demands. Impaired perfusion to the nerves can result in ischemic rest pain, often described as intractable burning foot pain. In the most advanced form, the toes or the entire forefoot can become black and mummified as gangrene develops.

CASE 1: Right Iliac Artery Thrombus With Distal Embolization



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A 27-year-old male presented with complaints of pain in the right second toe with bluish discoloration for 3 days. He had right buttock pain 3 months back, that got relieved with analgesics. He is an active smoker.

Clinical Examination :

Feeble femoral and absent popliteal pulse in tight leg

Cardiac evaluation with echocardiography showed regional wall motion abnormality with EF 54%.

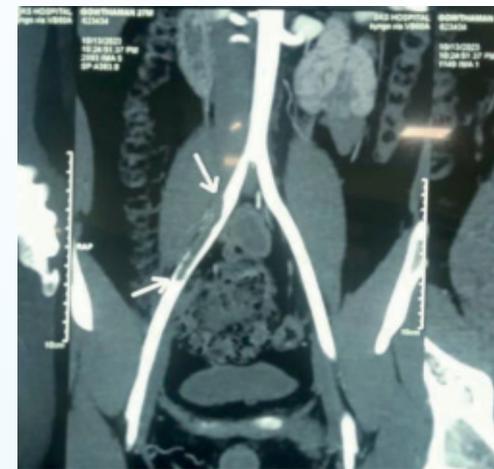


Image :

CT angiography showed a pedunculated thrombus in the right common iliac artery with occlusion of the right internal iliac artery and tibial arteries.



Diagnosis :

Hypercoagulable state. Right leg thrombo-embolism with iliac artery thrombus, hyper triglyceridemia.

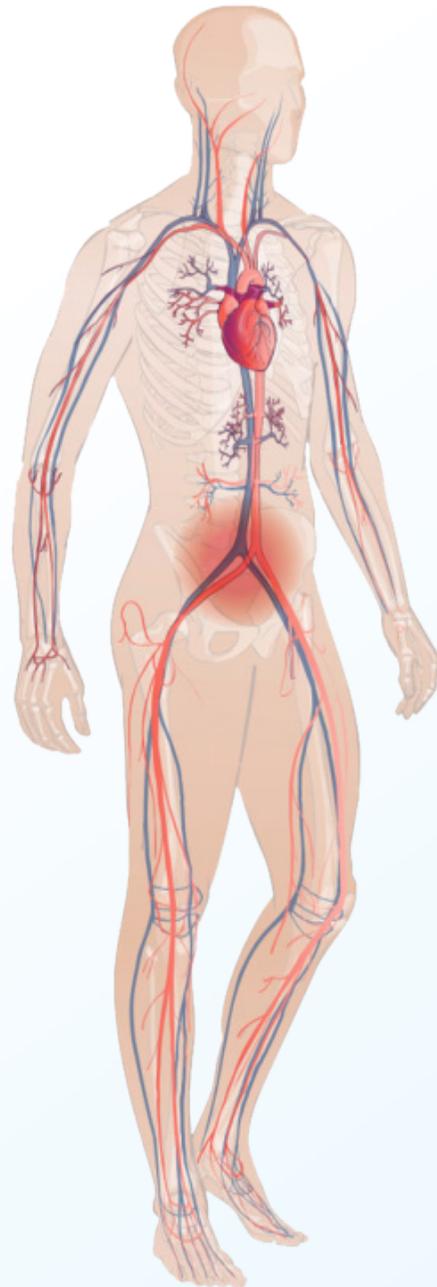
Procedure :

Right trans femoral thrombo-embolectomy

Post procedure :

The patient was discharged with palpable pedal pulse and ankle-brachial index 1.

CASE 2: Juxta-Celiac Artery Thrombus With Saddle Embolism



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A 43-year-old woman presented with complaints of pain in both lower limbs with difficulty in using her left leg for 2 hours.

Risk Factor : Uncontrolled diabetes.

Clinical Examination :

Revealed absent bilateral femoral popliteal and pedal pulse with ankle brachial index of 0.2 in right leg and absent signals in left leg vessels using hand doppler. she had sensory and motor weakness of left foot.

Cardiac evaluation with ECG and echocardiography showed no regional wall changes and no clot.



Recovered Thrombus

Diagnosis :

Saddle embolism (aortoiliac occlusion) class 1 ischemia right leg and class 2b ischemia left leg.

Image :

CT angiography showed thrombotic plaque in the juxta celiac aorta with saddle thromboembolism causing complete occlusion of infrarenal aorta reforming bilateral iliac arteries.

Procedure :

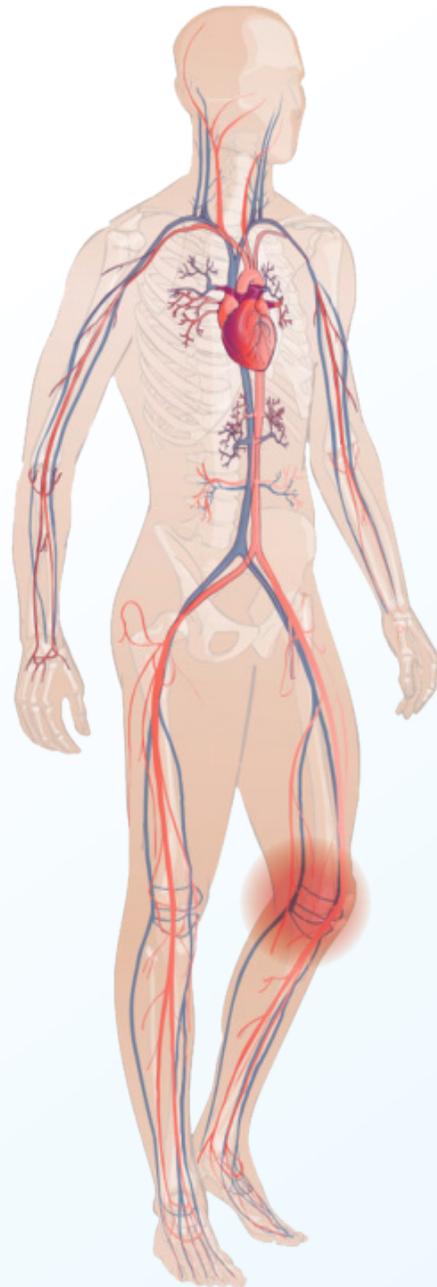
Bilateral transfemoral thrombo-embolectomy. Both the lower limbs were revascularized within 6 hours of onset.

Post-procedure :

She was discharged in ambulatory status with an ankle-brachial index of 0.8 in the right leg and 0.6 in the left leg.

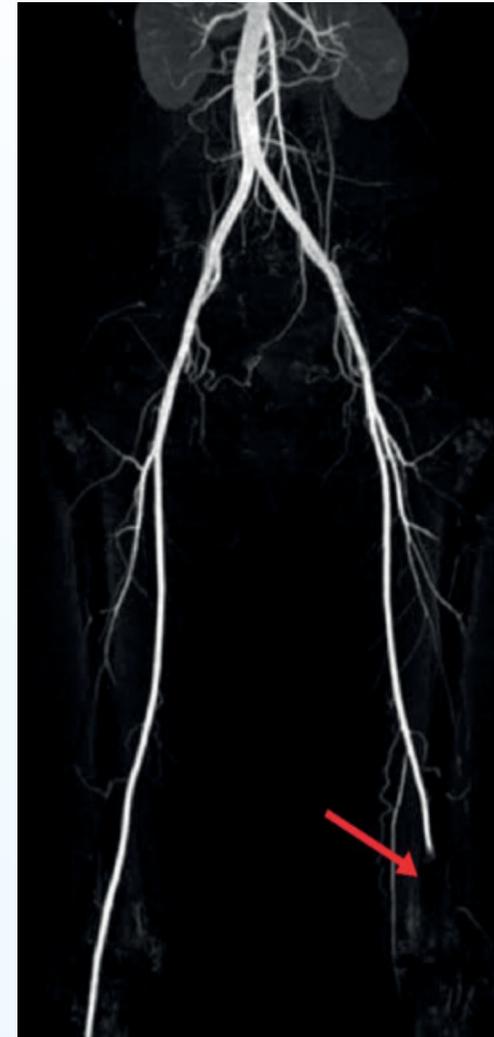


CASE 3 : Malignancy Induced Hypercoagulable State, Left Popliteal Artery Thrombus



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A 65-year-old male with lung malignancy on chemotherapy was referred by a medical oncologist with complaints of acute onset pain and coldness in the left leg, with absent pedal pulse for 1 day.



Clinical examination :

revealed left popliteal artery thrombosis with absent flow signal in pedal vessels in hand-held Doppler.

Cardiac evaluation with echocardiography



Before Thrombectomy



After Thrombectomy

showed no regional wall motion abnormality and no clot.

Image :

CT angiography showed an abrupt cut-off in the left popliteal artery with no distal reformation.

Diagnosis :

Left popliteal artery thrombosis (malignancy-associated or chemotherapy-induced hypercoagulable state).

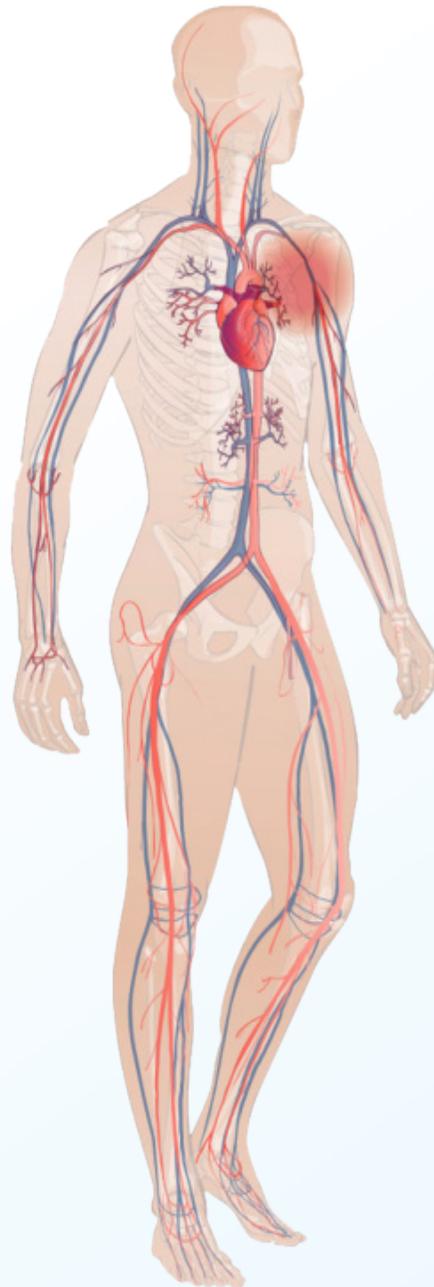
Procedure :

Lefttrans popliteal thrombectomy

Post-Procedure :

He was discharged in ambulatory status with palpable pedal pulse and ankle-brachial index of 0.9.

CASE 4: Left Subclavian Artery Thrombus With Distal Embolization



To Know More
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A 57-year-old male, an active smoker, presented with complaints of acute pain left hand and forearm for 5 days.

Clinical Examination :

Showed left forearm and hand coldness, sensory weakness and absent axillary, brachial, radial and ulnar pulses. Cardiac evaluation with echocardiography showed no regional wall motion abnormality and no clot.

CT angiography showed a pedunculated thrombus in the left subclavian artery and complete thrombotic occlusion of the left axillary artery and downstream vessels.



Diagnosis :

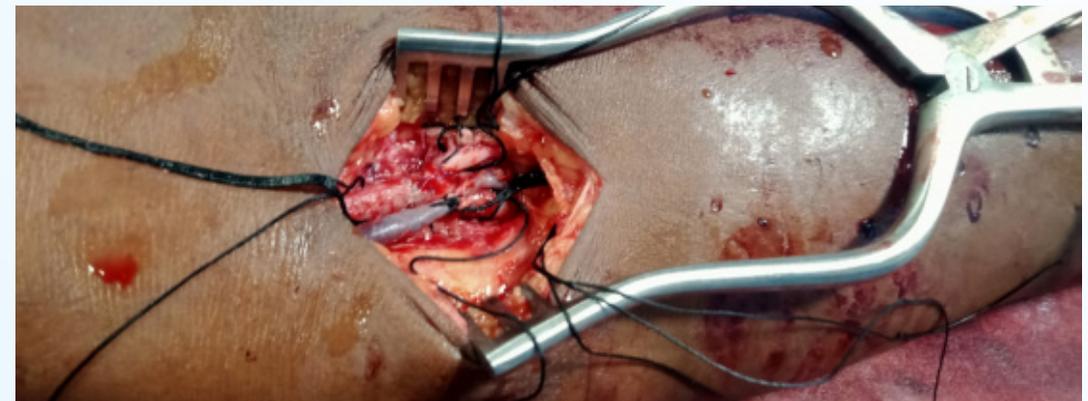
Left axillo-brachial thrombo-embolism with subclavian artery disease and hand ischemia.

Procedure :

Left trans-brachial endarterectomy and thrombectomy.

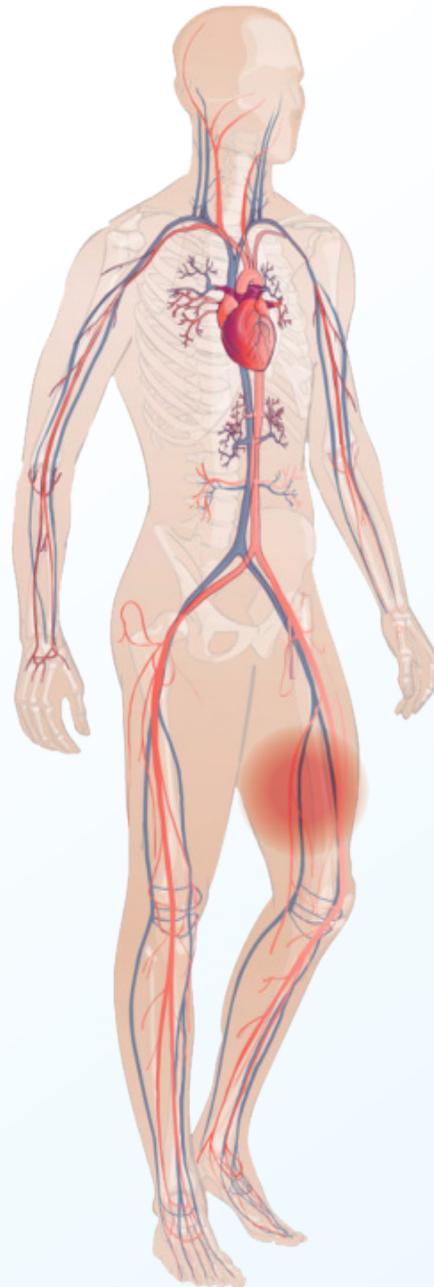
Post-procedure :

The patient had good flow in both radial and ulnar arteries and palpable brachial artery pulse. His hand pain was relieved. Left fingers SPO2 98% in room air.



Brachial artery thrombectomy operative image

CASE 5 : Post Traumatic Pseudoaneurysm And AV Fistula Left Thigh



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A 16-year-old boy was referred with a history of one episode of spontaneous bleeding from his left thigh. He had sustained an injury to his left thigh with a sharp wooden stick while playing at school a month ago.

Clinical Examination :

Revealed a tender pulsatile diffuse swelling over the left proximal thigh with palpable pedal pulse and no neurological deficit.

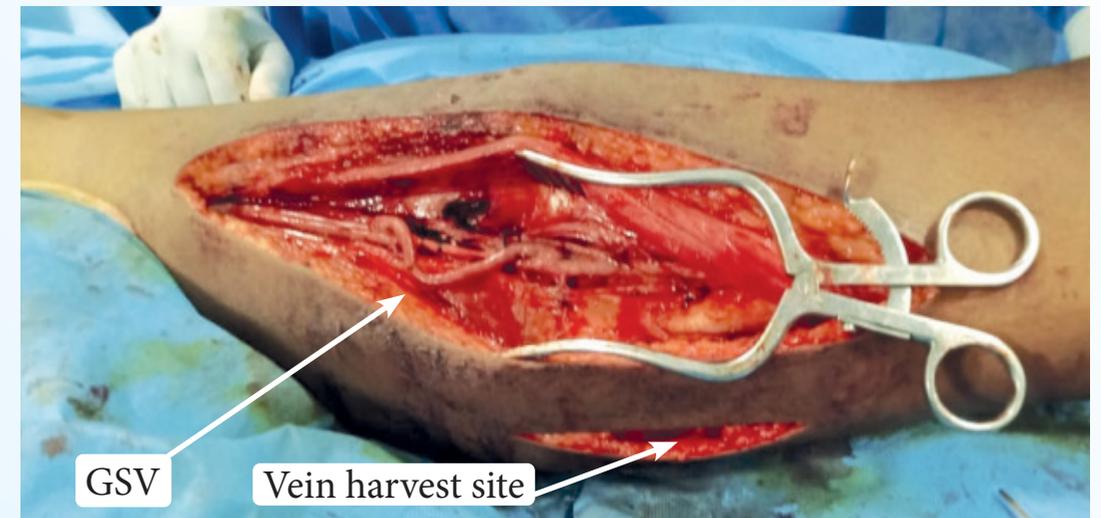
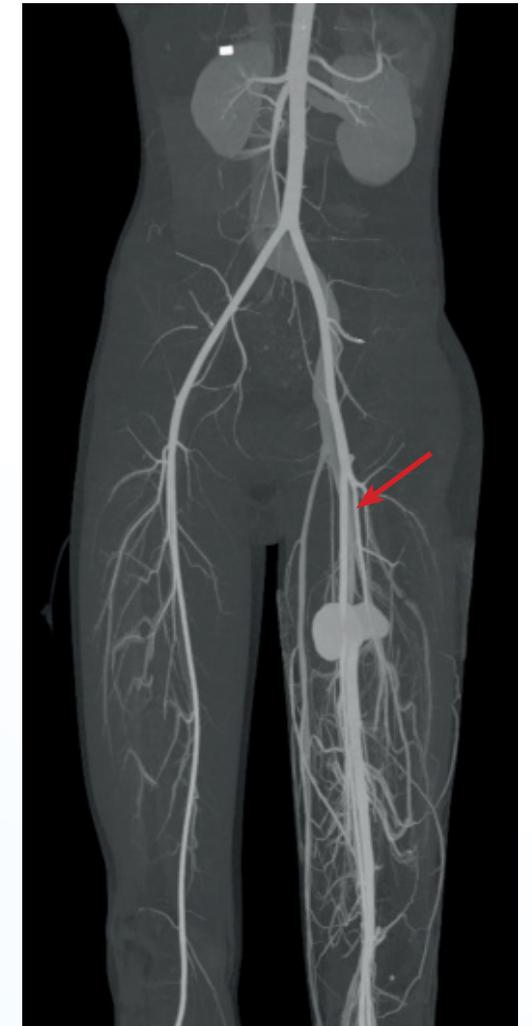
Image :

CT angiography showed proximal superficial femoral artery (SFA) pseudoaneurysm with arteriovenous fistula (to the femoral vein).

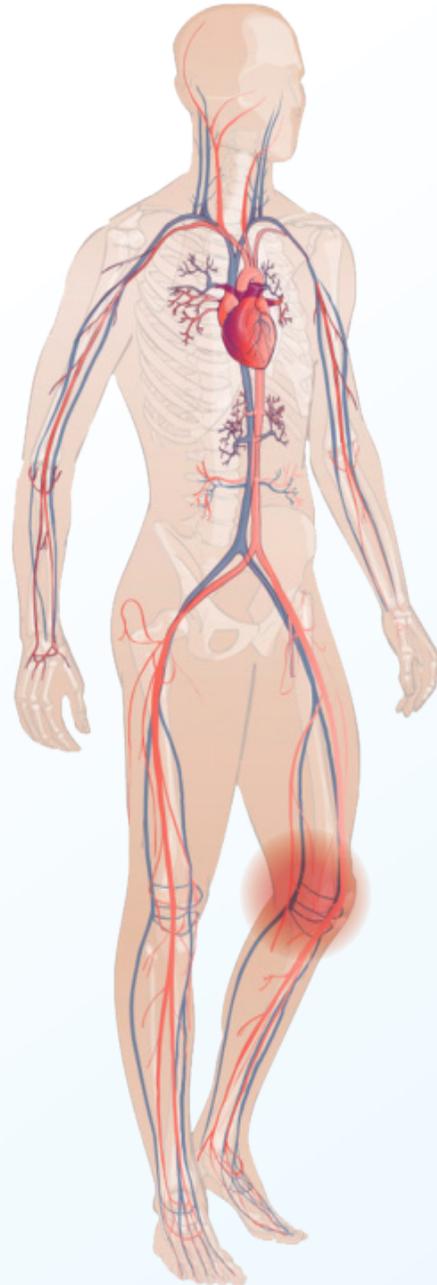
Procedure :

Left femoral vein ligation. Femoral artery pseudoaneurysm ligation with reconstruction of the SFA using great saphenous vein graft. The postoperative period was uneventful.

An additional length of vein graft was used to accommodate the increasing limb length when the growth spurt happens.



CASE 6: Left Tibia Plateau Fracture With Popliteal Artery Contusion Thrombosis



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A 20-year-old male was referred with an alleged history of RTA 3 days back. He sustained injury to his left leg associated with pain since then.

Clinical Examination :

Revealed an edematous left leg with absent popliteal and pedal pulses. Tenderness over left knee joint. Monophasic signal noted in pta using hand doppler .



Image :

CT angiography showed an abrupt cut-off in the mid-popliteal artery with reformation of the distal popliteal artery at the bifurcation.

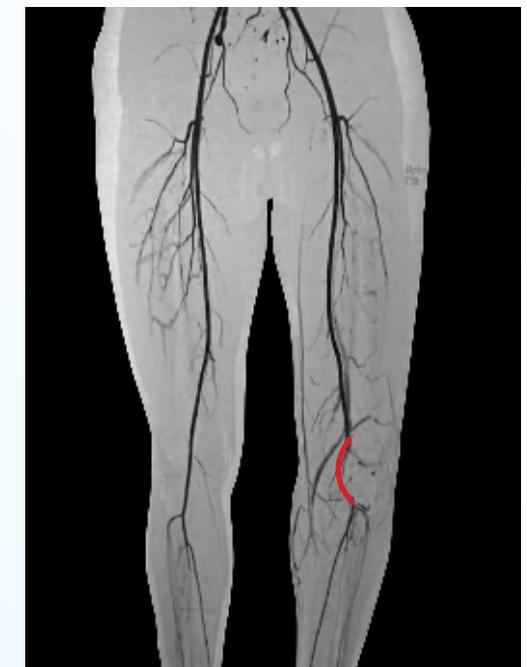
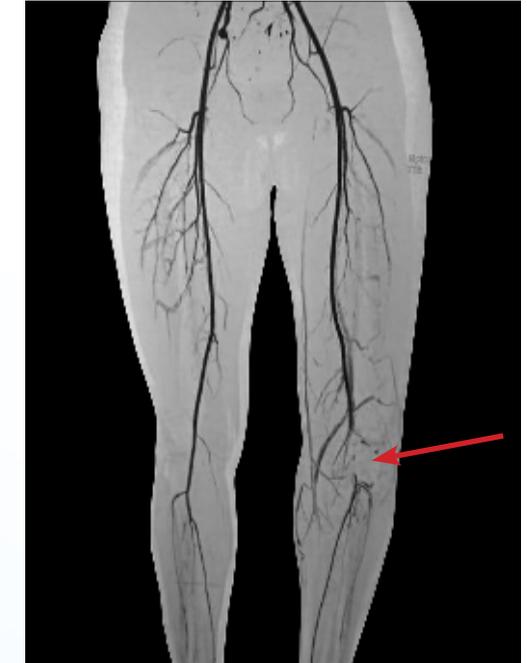
Diagnosis :

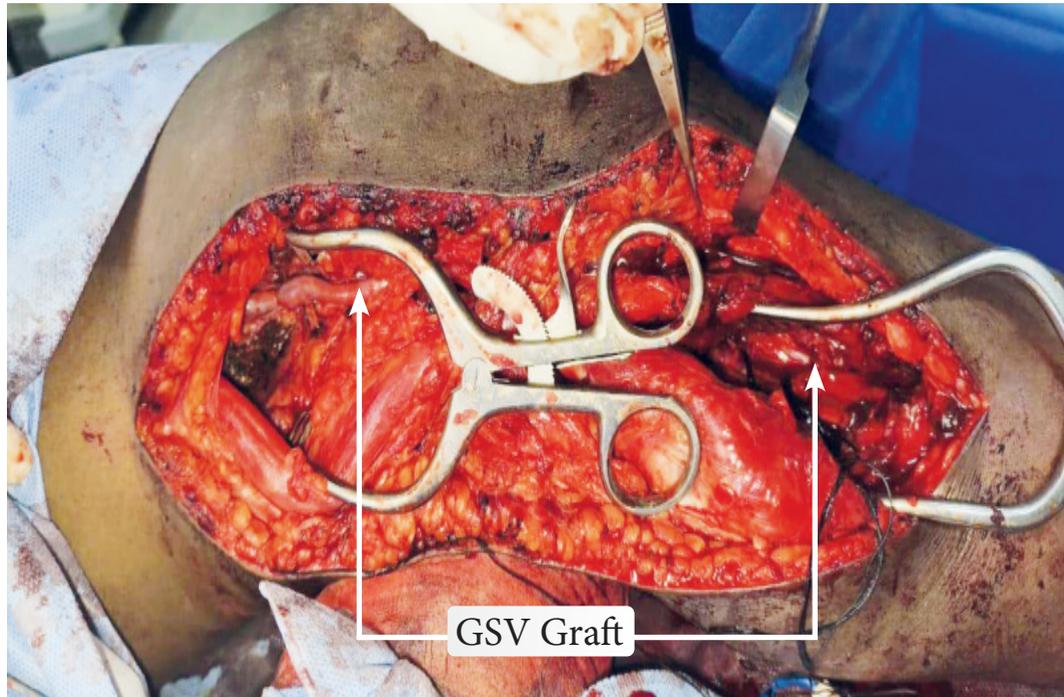
Left tibia plateau fracture and popliteal artery injury (class 1 ischemia),

Procedure :

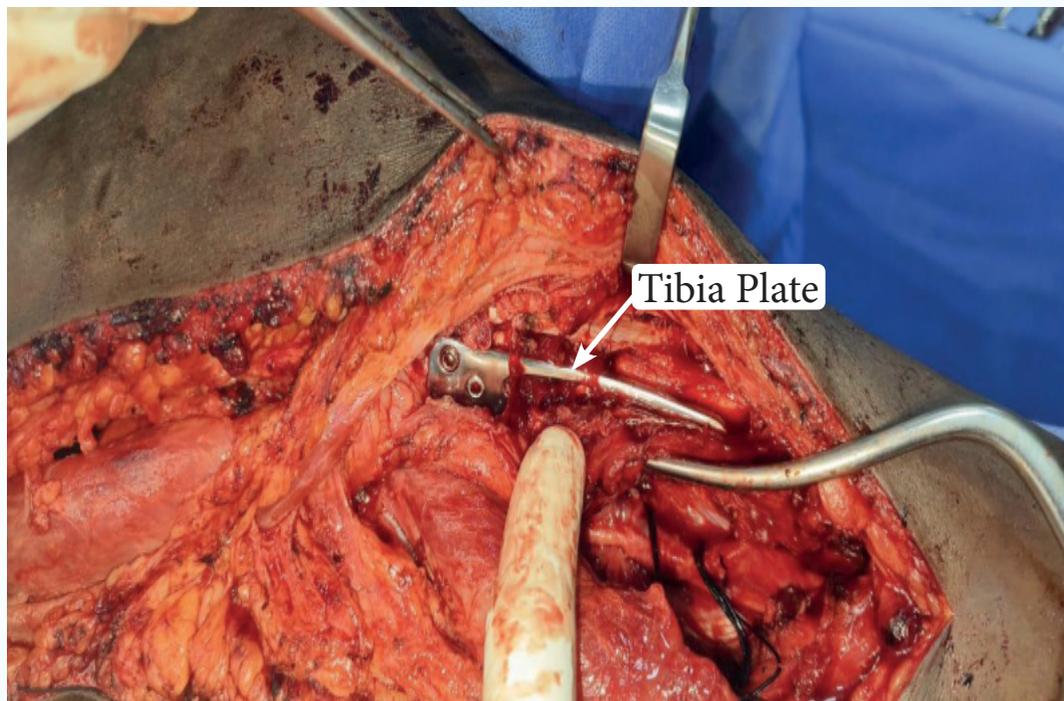
Left proximal popliteal artery to distal popliteal artery bypass using great saphenous vein graft with tibial plating in a single stage.

The postoperative period was uneventful. He was discharged with palpable pedal (DPA/PTA) pulses. On follow-up after 6 weeks, he was ambulant without support.





Left proximal popliteal to distal popliteal artery bypass operative image

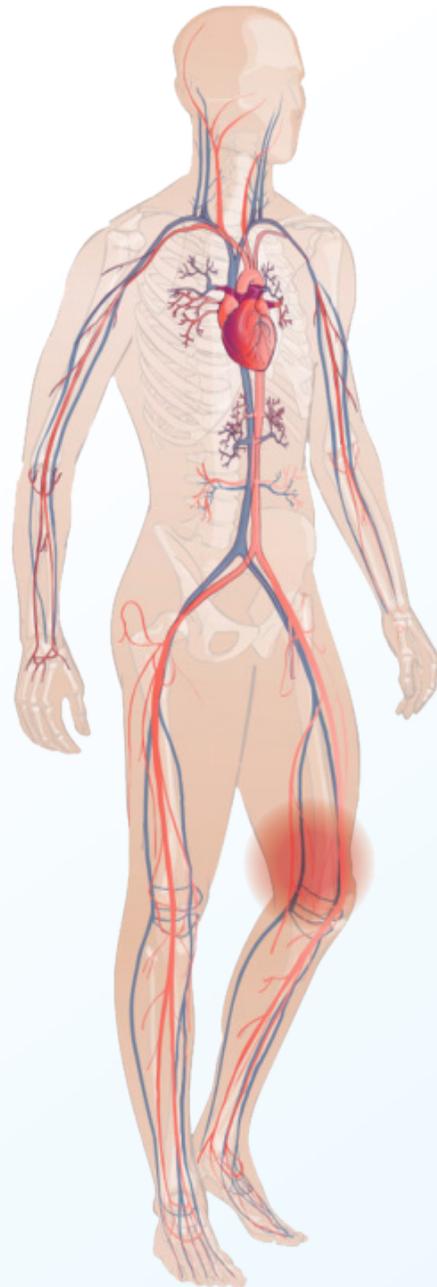


Tibia plating & Limb revascularisation in single stage



DEPARTMENT OF
CRITICAL CARE

CASE 7: Left Knee Subluxation With Popliteal Vessel Injury



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A 50-year-old male was referred with an alleged history of RTA 6 hours ago in which he sustained an injury to his left leg. He had pain and difficulty in using his left leg.

Clinical Examination :

Revealed absent left popliteal and pedal pulses, foot drop and sensory deficit below the knee level, hematoma in the knee extending into the medial aspect of the thigh and subluxation of the left knee.

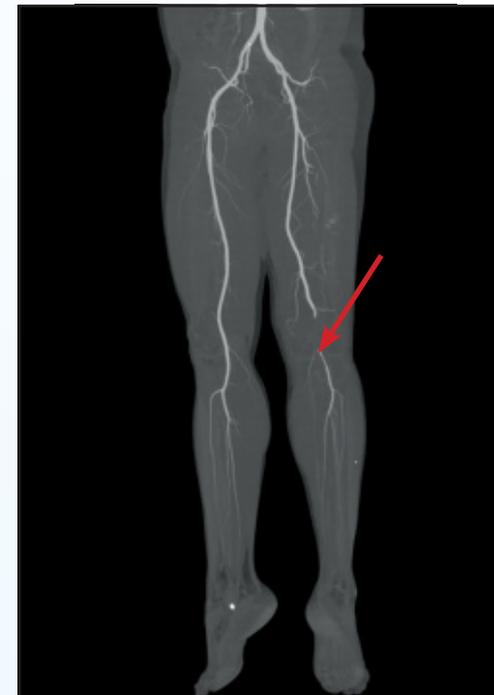


Image :

CT angiography showed an abrupt cut-off in the mid left popliteal artery with reformation of flow in the distal popliteal artery and hematoma in the left distal thigh.

Diagnosis :

Left knee subluxation and popliteal artery injury (class 2a ischemia).

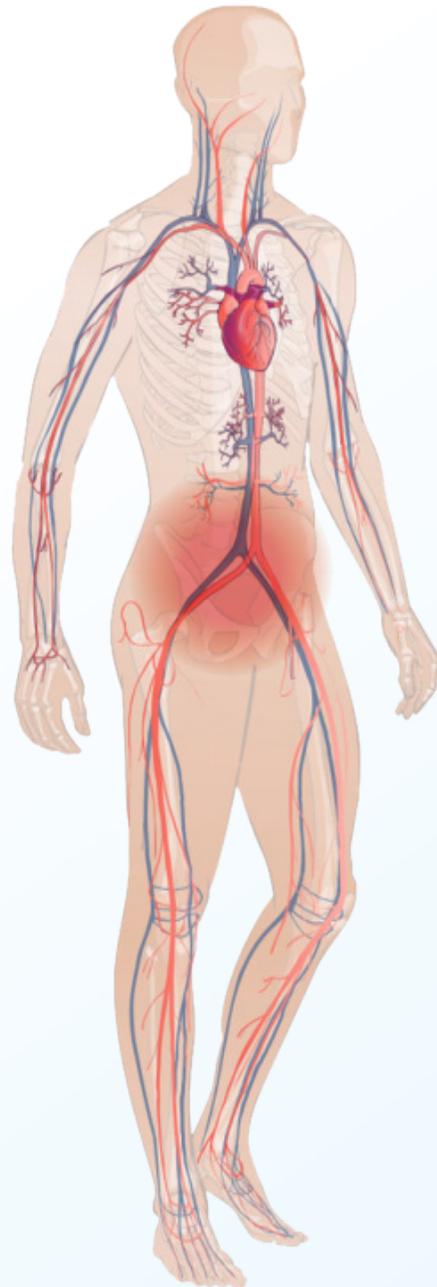


Procedure :

Left proximal popliteal artery to distal popliteal artery bypass using great saphenous vein graft. Popliteal vein injury (intraoperative finding) ligation. Three-compartment fasciotomy. Knee-spanning external fixator application.

Postoperatively, he had persistent ileus and abdomen distension for 48 hours. He had undergone a laparotomy procedure 20 years ago for acute abdomen. Since then, he has had abdomen pain and distension on and off. CECT abdomen revealed bowel adhesions and terminal ileum constriction. Our Surgical Gastroenterologist performed a diagnostic laparoscopy and proceeded with laparotomy and adhesiolysis. The patient recovered from the abdominal symptoms, tolerated oral diet, and was discharged with a palpable pedal pulse.

CASE 8: Juxta Renal Aorto Iliac Occlusion



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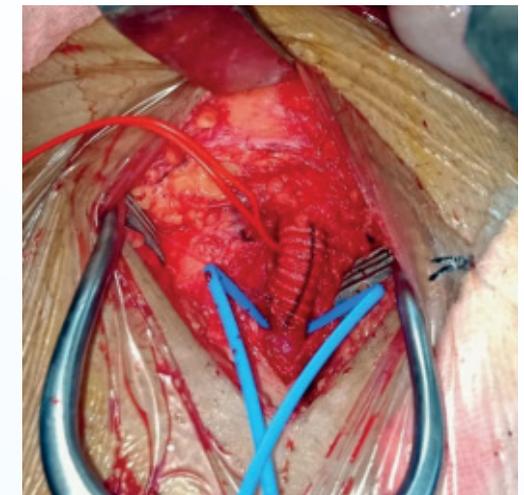
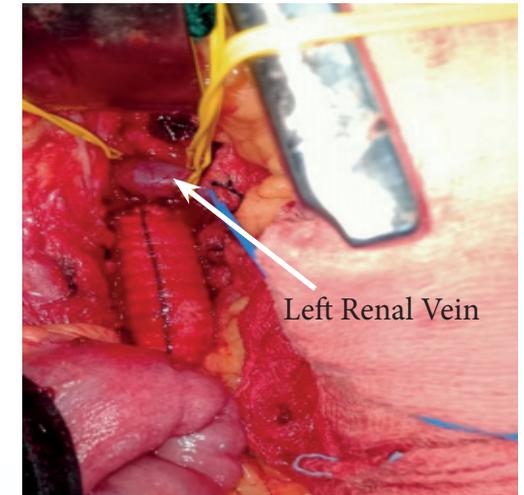
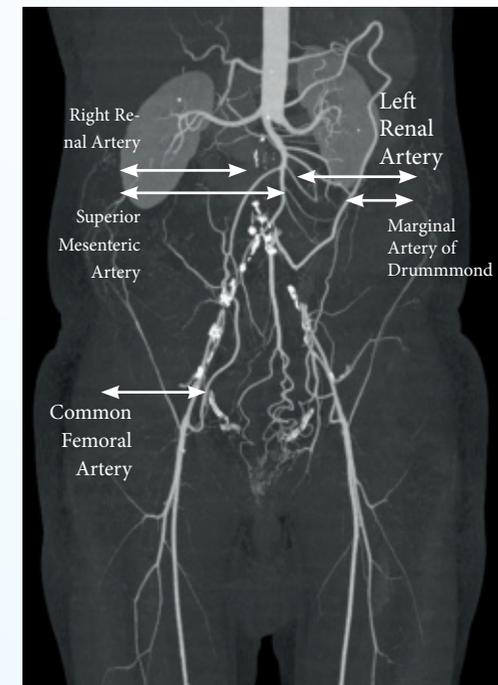
A 48-year-old male presented with complaints of right second toe ulcer and rest pain for 2 months.

Risk Factors :

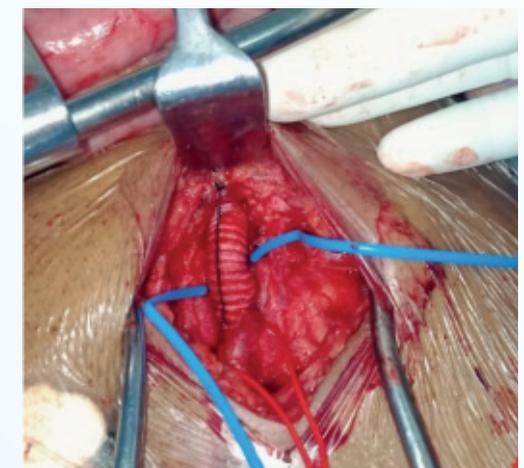
Smoking, diabetes and hypertension.

Clinical Examination :

Revealed absent aortic and bilateral femoral pulse with ankle-brachial index of 0.25 in right leg and 0.28 in left leg.



Right Femoral Artery - Graft Anastomosis



Left Femoral Artery - Graft Anastomosis

Cardiac evaluation revealed EF – 56% with no regional wall motion abnormality. Pulmonary function test showed mild airway disease.

Image :

CT angiography showed juxta renal aortoiliac occlusion with occluded inferior mesenteric artery and stenosed celiac artery.



Diagnosis :

Aortoiliac occlusion with critical ischemia in both legs.

Procedure :

Juxta renal aorta thromboendarterectomy. Aorto-bifemoral bypass using synthetic grafts.

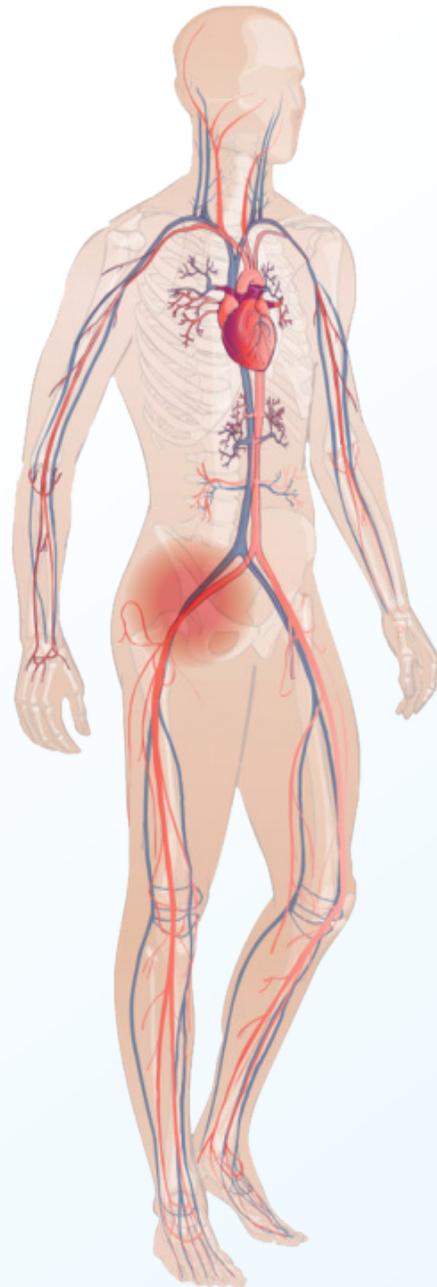
The postoperative period was uneventful. He was discharged with palpable pedal pulse in both limbs.



MOST ADVANCED CT SCAN IN SALEM REGION

**384 SLICE
CARDIAC CT SCAN**

CASE 9: Right Iliac Artery Chronic Total Occlusion



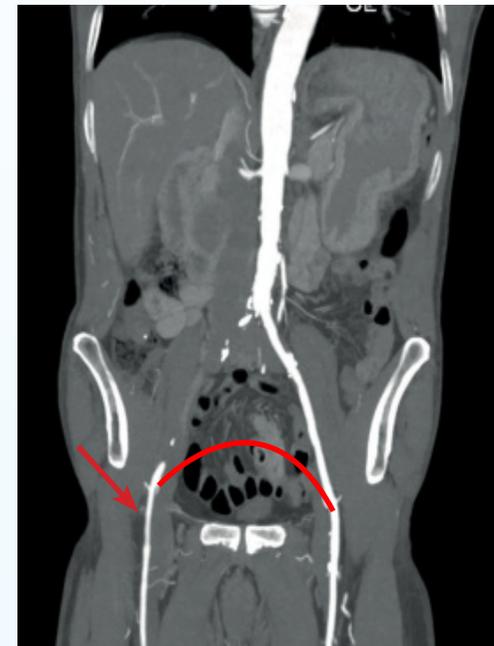
To Know More
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A 63-year-old male presented with right thigh and leg ulcer for 1 month with sepsis. severe claudication pain right leg with claudication distance of less than 100mts.

Risk Factors : Smoking & COPD.

Clinical Examination :

Revealed absent left tibial pulse and absent right femoral, popliteal and pedal pulses. ABI of left leg - 0.6 and ABI of right leg 0.3.



Cardiac evaluation with echocardiography showed EF 45% with regional wall motion abnormality. Pulmonary function test showed moderate to severe airway disease with FEV1 sec 40 to 50%.

Image :

CT angiography showed right common iliac and external iliac artery occlusion with reformation of flow in the femoral artery.



Left Femoral to Right Femoral Artery Cross Over Bypass

Diagnosis :

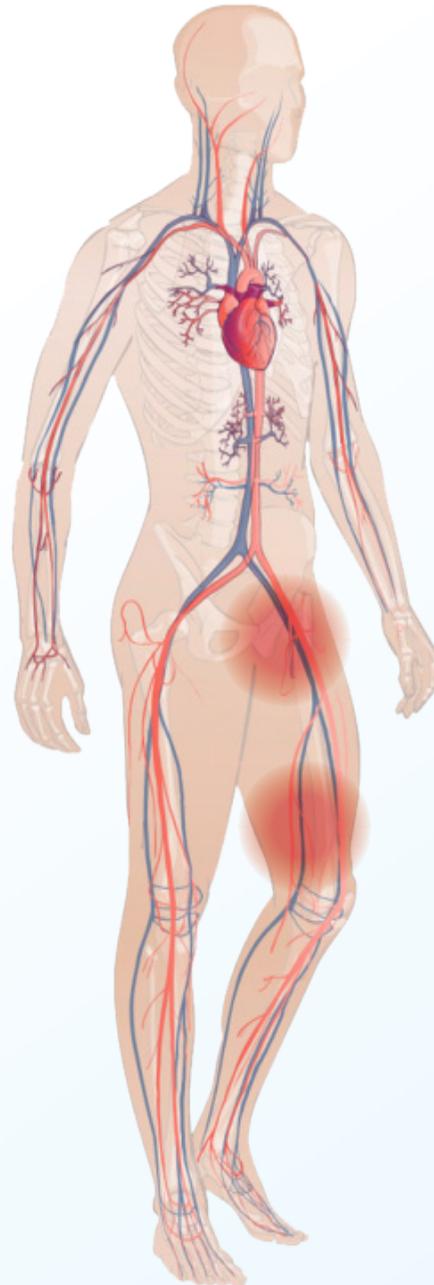
Right iliac occlusion with critical ischemia.

Procedure :

Fem-fem crossover bypass using synthetic graft.

The postoperative period was uneventful. He was discharged with palpable pedal pulse and healing ulcer.

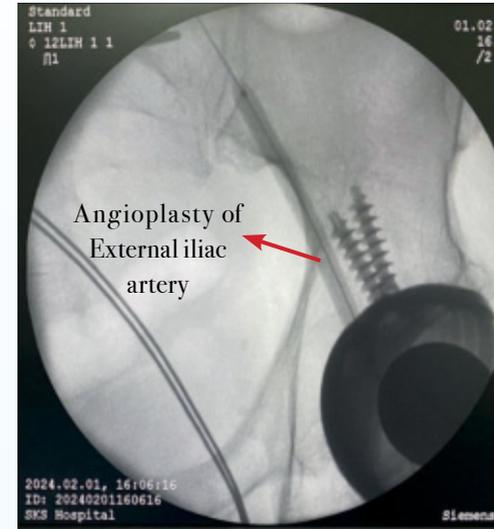
CASE 10: Left Iliac Artery Disease With Fempop Occlusion



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A 65-year-old male presented with left leg pain and little toe gangrene for 2 months.

Risk Factors: Smoking and hypertension.



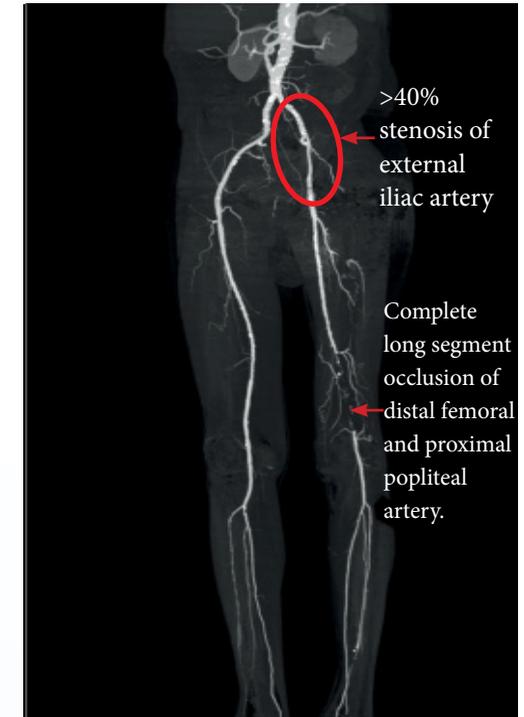
Hybrid procedure - Left external iliac artery angioplasty

Clinical Examination :

Revealed a feeble left femoral pulse and absent popliteal and pedal pulses. Cardiac evaluation with echocardiography revealed EF 70% with no regional wall motion abnormality.

Image :

CT angiography showed left external iliac artery 40% stenosis (narrowing), distal femoral and proximal popliteal artery occlusion.



Diagnosis :

Left iliac disease with fem-pop occlusion and critical ischemia.

Procedure :

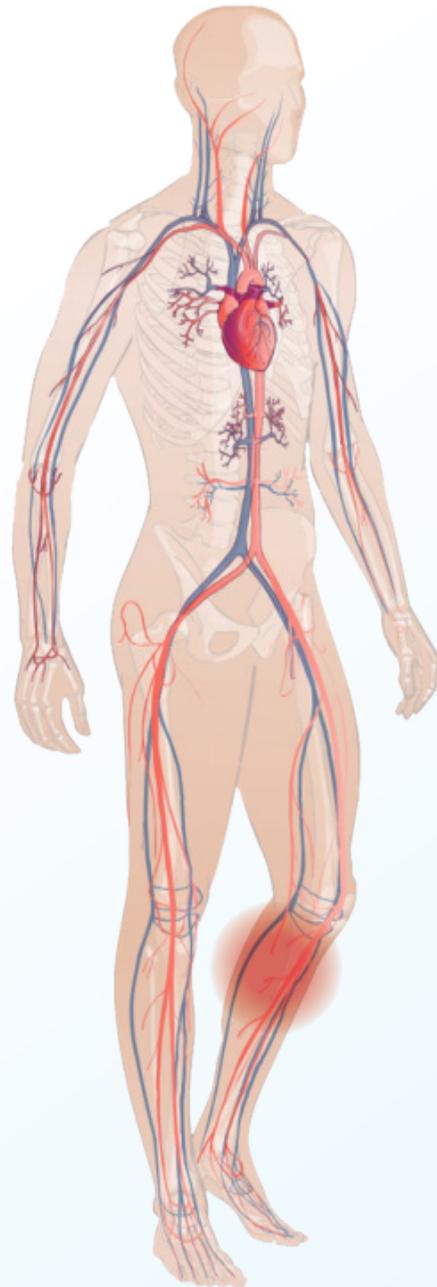
Left iliac artery angioplasty and mid femoral artery to distal popliteal artery bypass using great saphenous vein graft. Gangrene toe disarticulated.

The postoperative period was uneventful. He was discharged with palpable pedal pulse.



Mid Femoral Artery to Distal Popliteal Artery Bypass

CASE 11: Acute On Chronic Ischemia Left Leg - Below Knee Bypass (Mid Peroneal Artery)



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A 65-year-old male presented with left leg pain for 2 weeks associated with coldness of the foot.

Risk Factors :

Smoking, chronic kidney disease.

Clinical Examination :

Revealed absent left popliteal and pedal pulses, coldness of the left mid-leg, and sensory and motor weakness of the foot.

Image :

Non-contrast MRI showed complete occlusion of the left distal popliteal artery with reformation of flow in the mid-peroneal artery (single vessel outflow).



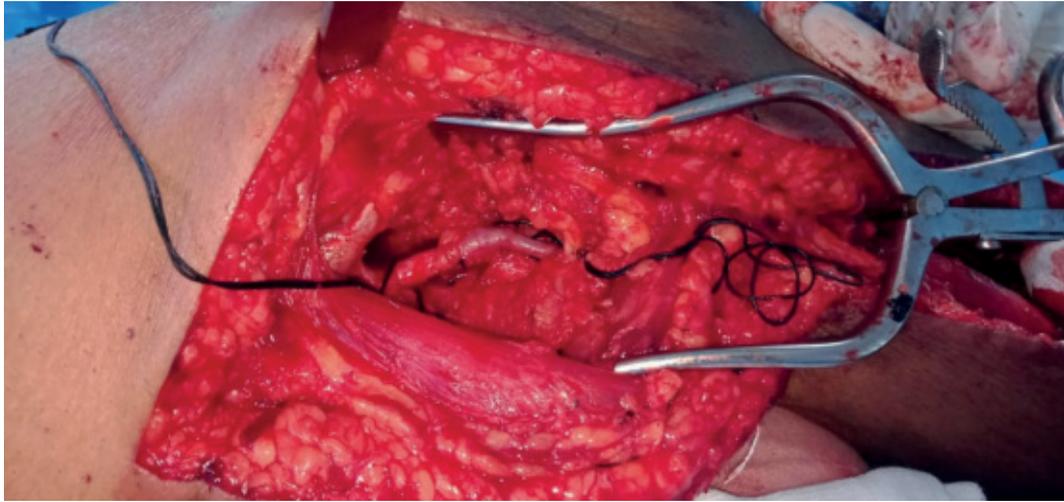
Diagnosis :

Acute-on-chronic ischemia of the left leg with popliteo-tibial occlusion (class 2b ischemia).

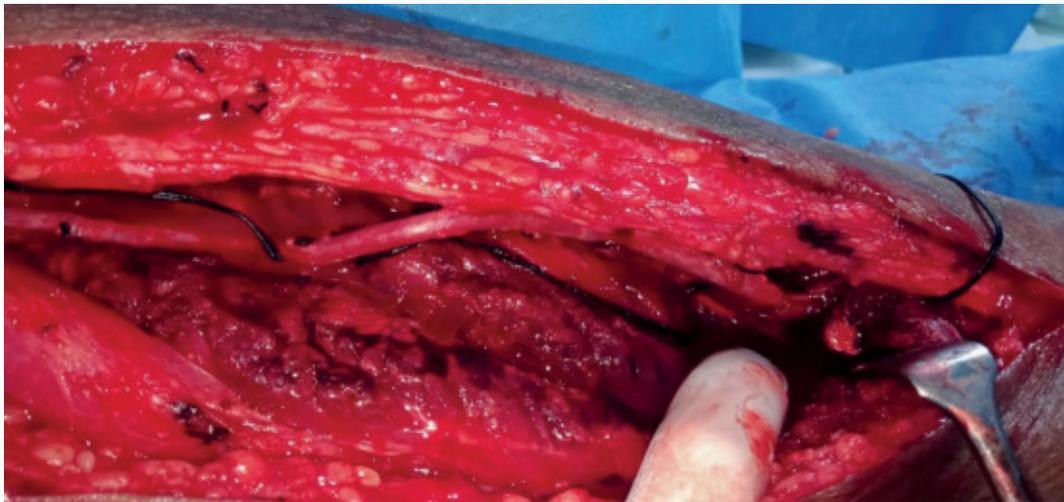
Procedure :

Left proximal popliteal artery to mid peroneal artery bypass using great saphenous vein graft.

The post operative period was uneventful. He was discharged in ambulatory status, with an ankle-brachial index of 0.8 in his left leg.



Proximal Popliteal artery to GSV anastomosis



Mid peroneal artery to GSV anastomosis

ADVANCED 3D CATHLAB



IVUS Philips



FFR Machine

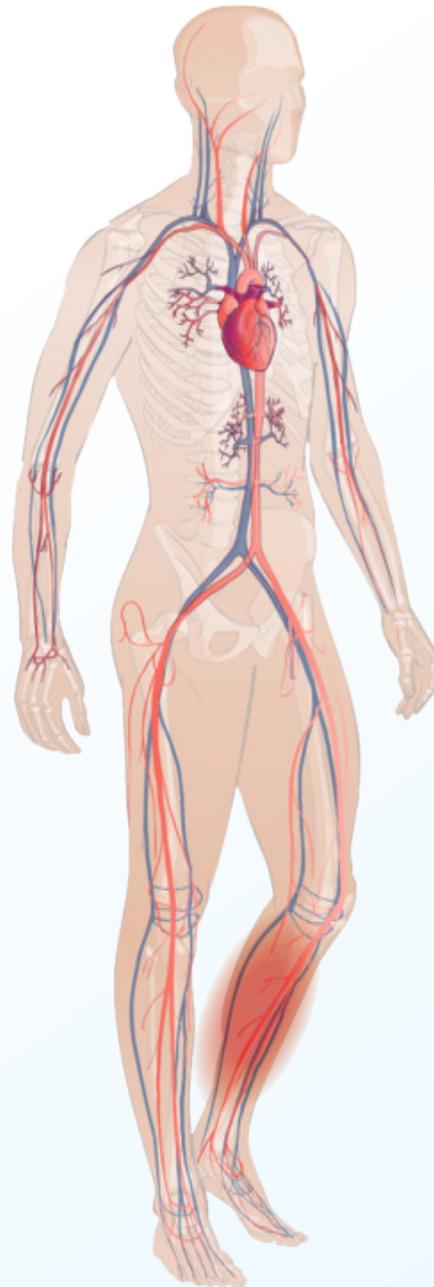


IABP Machine



ECMO

CASE 12: Chronic Ischemia Left Leg - Below Knee Bypass (Distal ATA)



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An 85-year-old male was referred with non-healing left heel ischemic ulcer, fifth toe gangrene and rest pain for 3 months.

Risk Factors :

Diabetes, hypertension, chronic kidney disease.

Clinical Examination :

Revealed absent left popliteal and pedal pulses with an ankle-brachial index of 0.3. Cardiac evaluation with echocardiography showed EF 65%, no regional wall motion abnormality.

Image :

Non-contrast MRI showed complete occlusion of the left distal popliteal artery and tibial vessels, with thin reformation of the distal anterior tibial artery (ATA).



Diagnosis :

Left leg popliteo-tibial occlusion with critical ischemia.



Procedure :

Left proximal popliteal artery to distal ATA bypass with great saphenous vein graft, fifth toe amputation and heel debridement.

Post-procedure :

The patient had a palpable dorsalis pedis pulse. He was relieved of pain in his left leg and discharged with an ankle-brachial index of 1.



Proximal Popliteal artery to GSV anastomosis



GSV to distal ATA anastomosis



Post revascularisation wound debridement status



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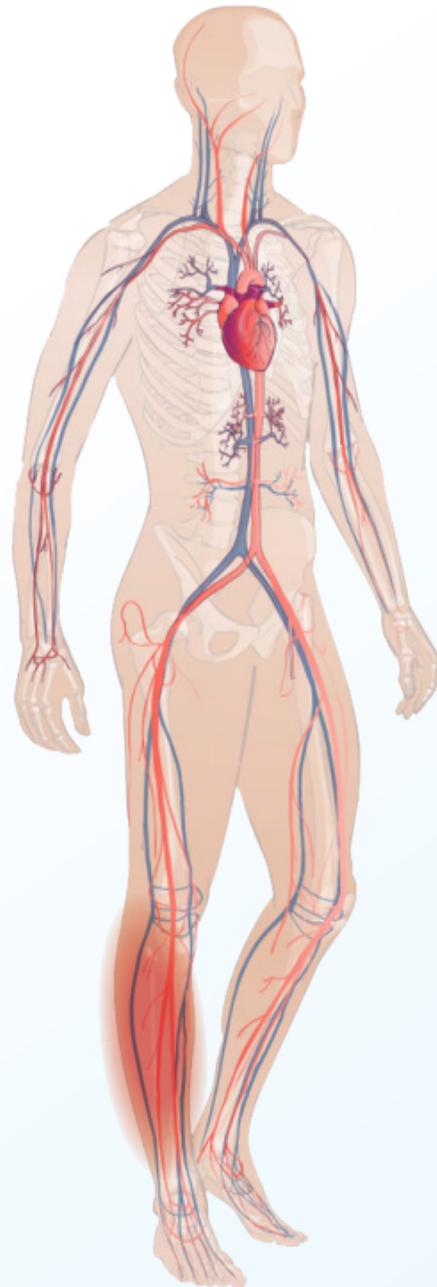
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CASE 13 : Chronic Ischemia Right Leg - Below Knee Bypass (Distal Peroneal Artery)



To Know More
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A 55-year-old male presented with rest pain in the right leg for 4 months and non-healing ischemic ulcer heel for 3 months.

Risk Factors : Diabetes, ex-smoker.

Clinical Examination :

Revealed feeble right popliteal pulse and absent pedal pulse, with ankle-brachial index of 0.28. Cardiac evaluation with echocardiography showed EF 55% and mild regional wall motion changes.

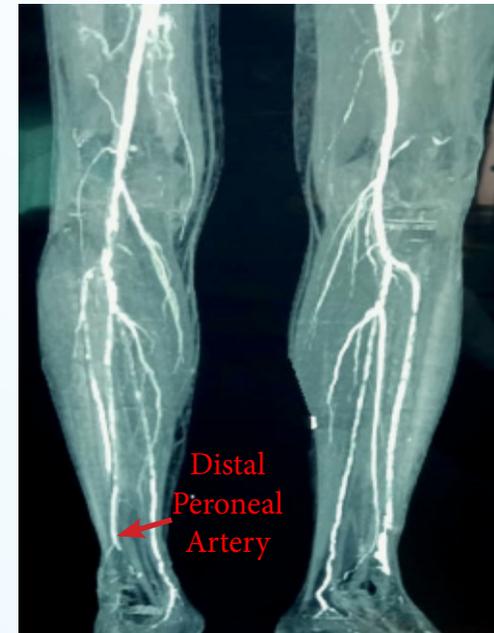


Image :

CT angiography showed right mid-popliteal artery stenosis, complete occlusion of the distal popliteal artery with reformation of flow in the distal peroneal artery. Dense calcification of the tibial vessels and mid-peroneal artery.

Diagnosis :

Right popliteo-tibial occlusion with critical ischemia.



Ischemic heel ulcer before revascularisation



Post revascularisation wound healthy granulation



Heel Ulcer after 4 Months

Procedure :

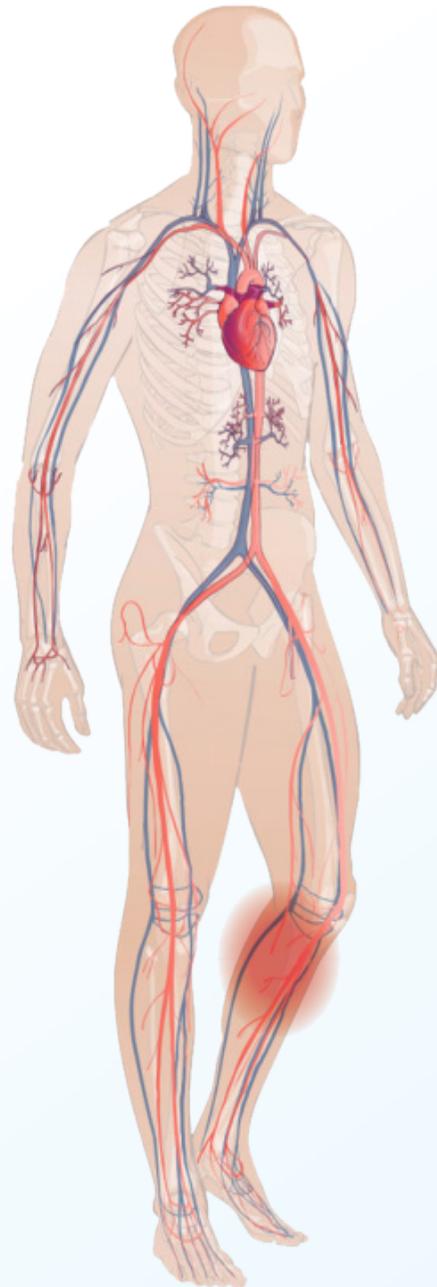
Right proximal popliteal artery to distal peroneal artery bypass using spliced great saphenous vein graft and heel debridement.

The post-procedure period was uneventful. His foot pain got relieved. The heel ulcer healed in 3 months time.

Proximal Popliteal Artery to Distal Peroneal Artery Bypass using GSV as graft



CASE 14: Vasculitis Left Leg - Below Knee Bypass (Proximal Peroneal Artery)



To Know More
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A 38-year-old male was referred with left forefoot gangrene associated with rest pain for 6 weeks.

Risk Factors :

Smoking, diabetes, hypertension.



Clinical Examination :

Revealed absent pedal pulse with ankle-brachial index of 0.4. Cardiac evaluation with echocardiography showed EF 60% and no regional wall motion abnormality.

Image :

CT angiography showed partial thrombosis in the left mid-popliteal artery with complete occlusion of the distal popliteal artery extending into the tibioperoneal trunk and reformation of flow in the proximal peroneal artery. Multi-segment disease in the posterior and anterior tibial arteries (PTA and ATA).



Diagnosis :

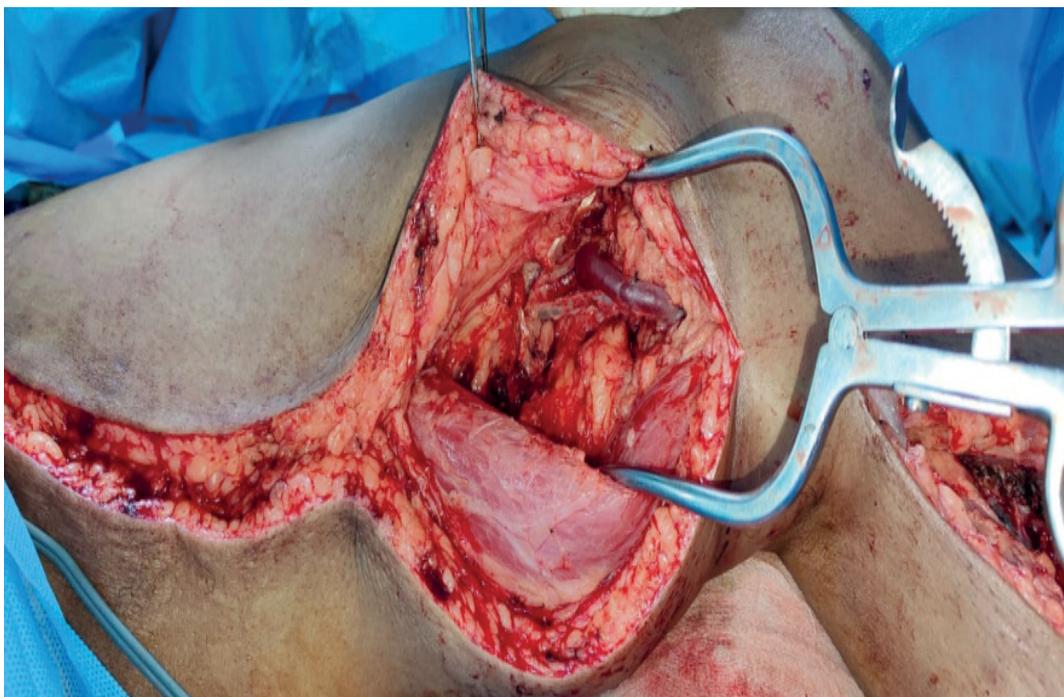
Vasculitis. Left leg popliteo-tibial occlusion with critical ischemia.

Procedure :

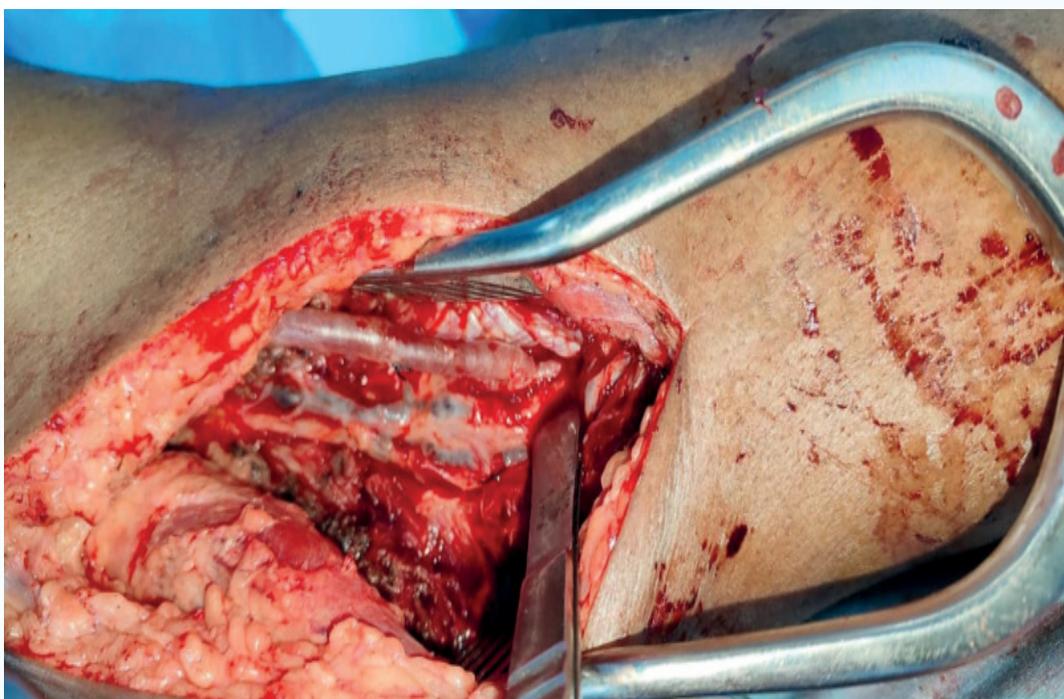
Left proximal popliteal artery to proximal peroneal artery bypass using spliced great saphenous vein graft.

Post-Procedure :

Period was uneventful. The ankle-brachial index of the left leg improved to 0.8. Foot gangrene started showing demarcation.



Proximal popliteal artery to GSV anastomosis



Proximal peroneal artery to GSV anastomosis

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EMERGENCY & CASUALTY

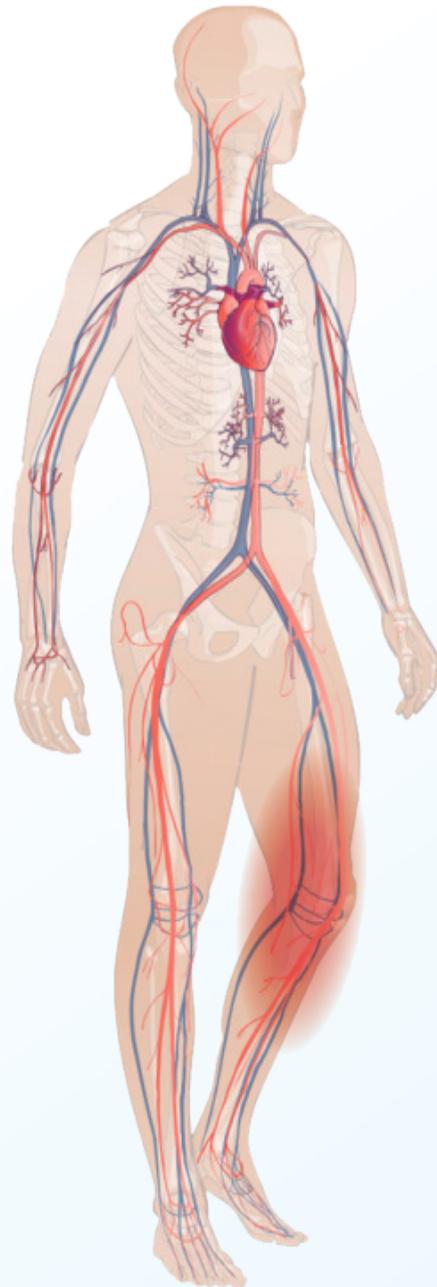
The department is located on Ground Floor of SKS Hospital Building and provides emergency medical services 24 hrs. a day, 7 days a week, manned by qualified team of doctors and para-medical staff with all essential medical facilities.

AMBULANCE SERVICES

The hospital has a well equipped ambulances. The basic task here is to retrieve emergency cases from the proximity areas of the hospital. The ambulances are equipped with advanced life support systems and carry a doctor on board for cardiac and other life threatening emergencies.

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CASE 15: Chronic Ischemia Left Leg - Below Knee Bypass (Proximal PTA)

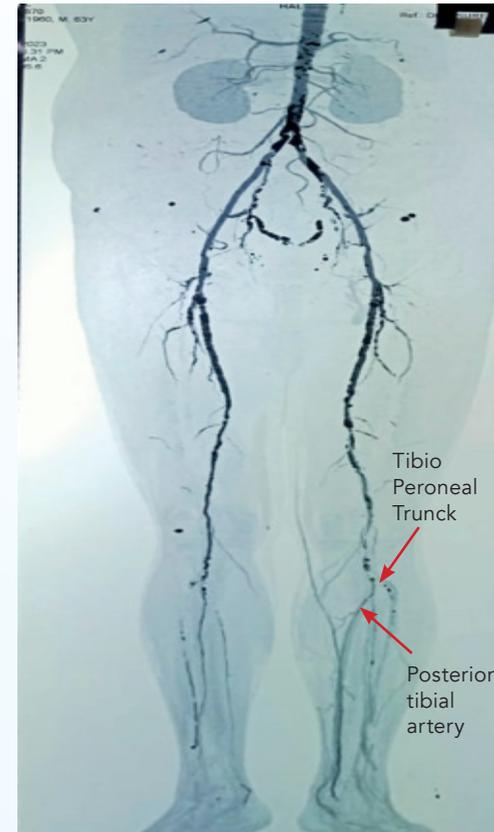


To Know More
scan this QR code

A 63-year-old male was referred with ischemic rest pain in his left foot and non-healing ulcer in the toes for 2 months.

Risk Factors :

Smoking, diabetes, hypertension and obesity.



Clinical Examination :

Revealed absent left popliteal and pedal pulses with an ankle-brachial index of 0.3. Cardiac evaluation with echocardiography showed EF 60% with no regional wall motion changes.

Image :

CT angiography showed diffuse mid superficial femoral artery disease with



complete occlusion of the popliteal artery and flow reforming in the tibioperoneal trunk. Poor reformation of flow in the anterior tibial and peroneal arteries.

Diagnosis :

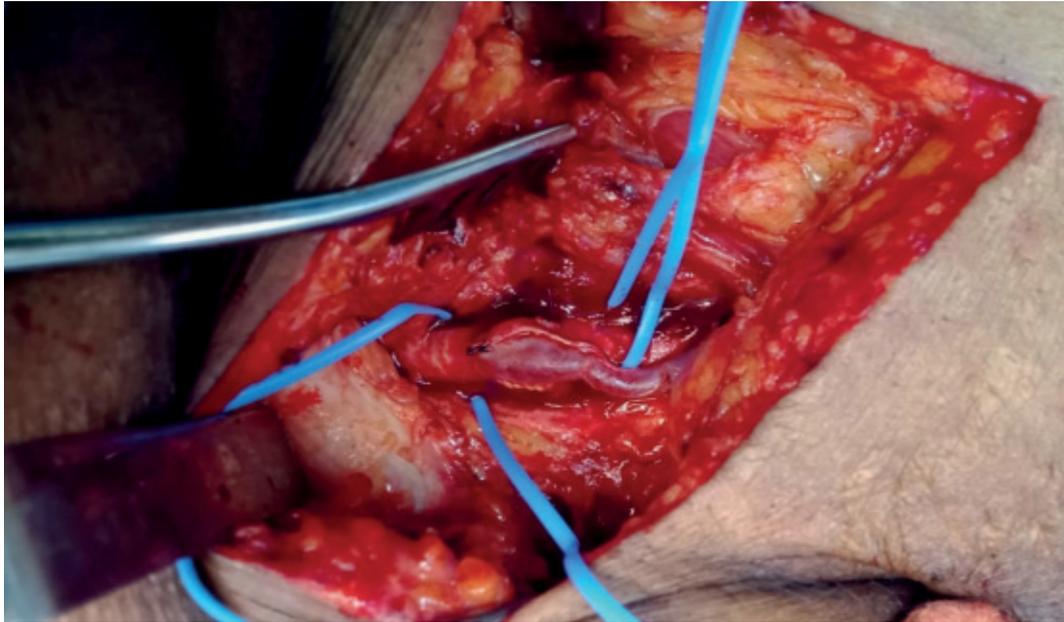
Left fem-pop occlusion with critical ischemia

Procedure :

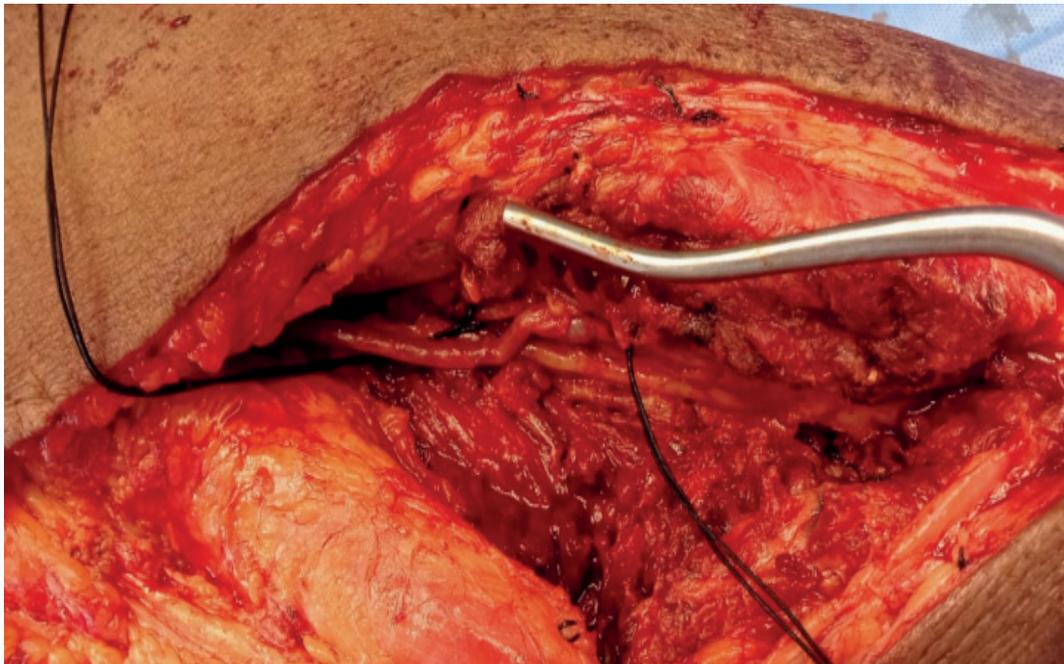
Left femoral artery to proximal posterior tibial artery bypass using great saphenous vein graft.

The post-procedure :

Period was uneventful. Ankle-brachial index improved to 0.9. He was discharged with palpable PTA pulse.



Left common femoral artery to GSV anastomosis



GSV to Posterior tibial artery anastomosis

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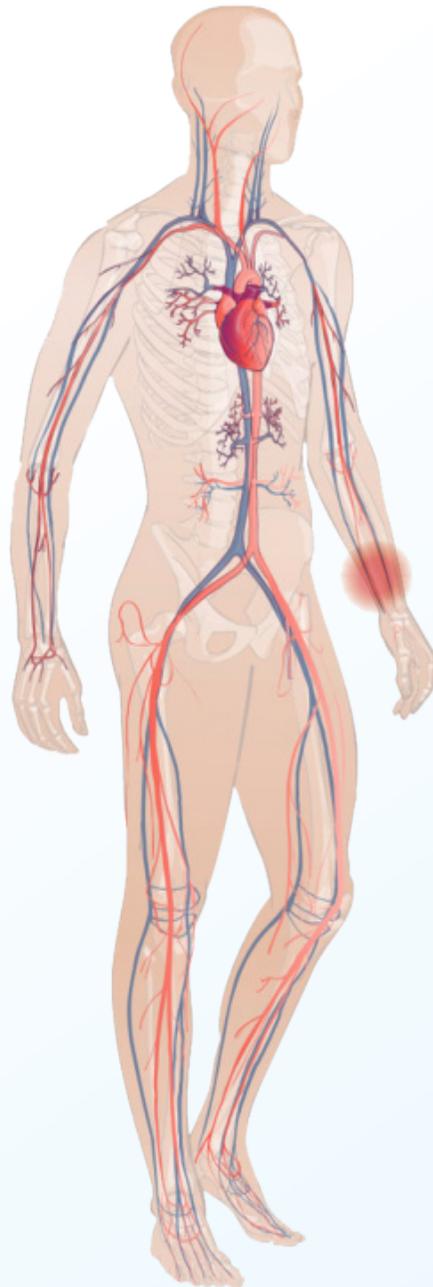
DrNB

Critical Care

SKS HOSPITAL
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CASE 16: Occupational Injury Left Forearm - Neurovascular Reconstruction

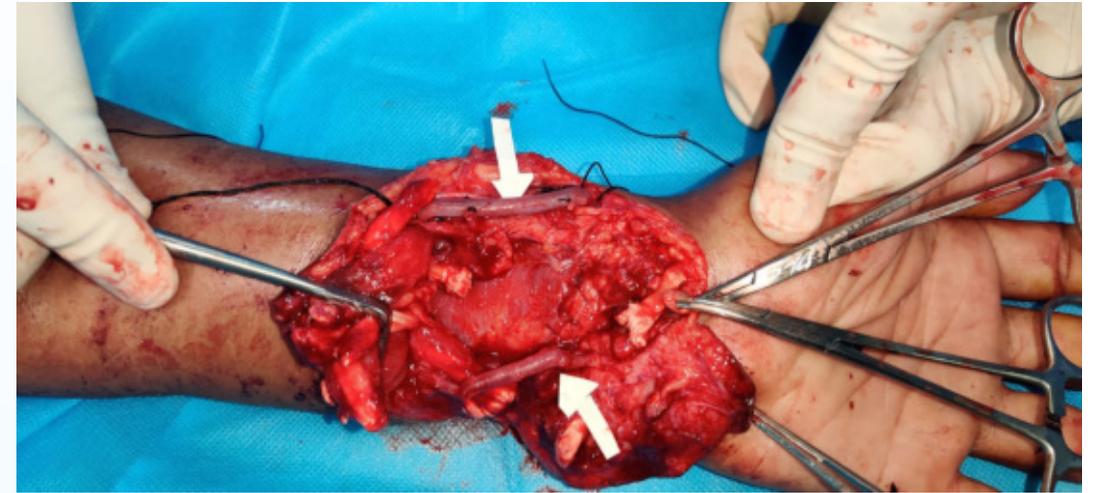


To Know More
scans for a QR code

22 Years male brought with alleged h/o occupational injury to left forearm with bleeding since 3 hrs h/o difficulty in using left hands sensory deficit noted.

Clinical Examination :

Revealed flexion deformity of left hand fingers, bleeding injury of distal forearm. Hand hold doppler study of Lt palmar arch - monophasic flow noted.



Diagnosis :

Left forearm radial and ulnar vessels, median nerve and soft tissue injury.

Procedure :

Radial and ulnar artery reconstruction using RGSV interposition graft, radial & ulnar veins ligation, median nerve & soft tissue repair.

CASE 17: Right Subclavian Artery Stenosis - Stenting

A 47-year-old male was referred with an ischemic non-healing ulcer in his right middle finger for 3 weeks (s/p incision and drainage of abscess) associated with pain.

Risk Factors : Uncontrolled diabetes (HbA1C 11.8%).

Clinical Examination : revealed absent right subclavian, brachial, radial and ulnar pulses.

Image : CT angiography showed focal tight stenosis of the right subclavian artery at its origin.



Diagnosis : RT SCA Stenosis, critical ischemia right hand

Procedure : Right subclavian artery stenting.

Post-procedure : He developed palpable radial and ulnar pulse with finger SPO2 100% in room air. Wound showed healthy granulation at discharge.

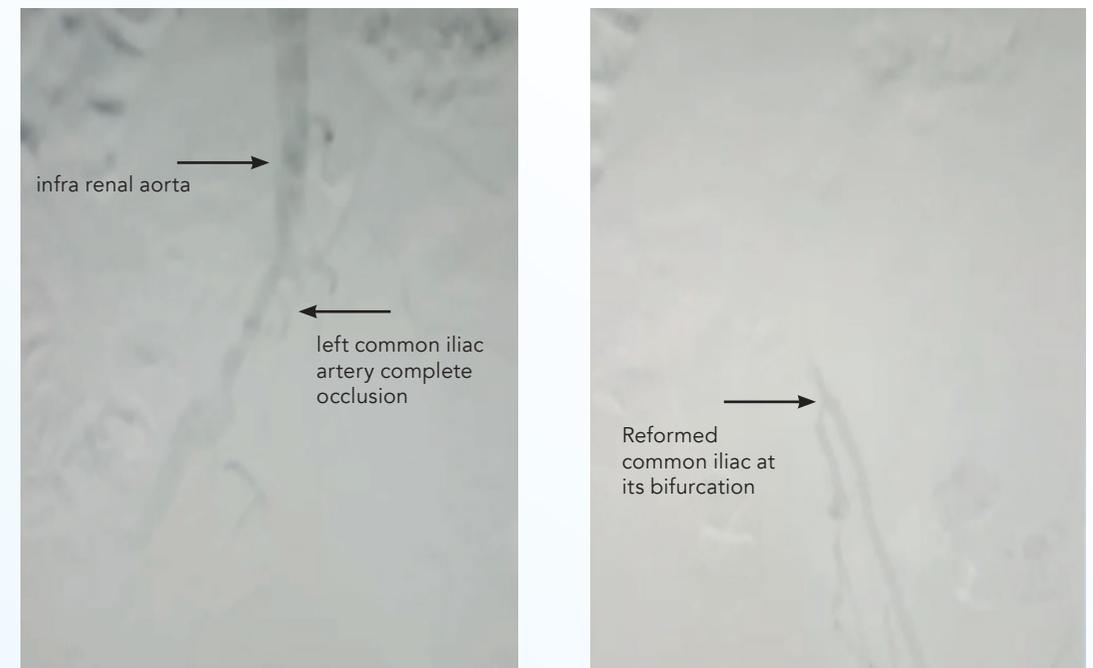
CASE 18: Left Common Iliac Artery Occlusion - Stenting

A 63-year-old male was referred with rest pain in the left foot with an ischemic second toe stump ulcer for 6 weeks.

Risk Factors : CAD with EF 40% s/p CABG, diabetes, hypertension.

Clinical Examination : Revealed a cold left foot, absent left femoral pulse and feeble right femoral pulse. Ankle-brachial index 0.7 in the right leg and 0.25 in the left leg.

Image : CT angiography showed complete occlusion of the left common iliac artery, proximal left SFA stenosis and distal SFA long segment occlusion, strong collateral from profunda femoris artery reforming the proximal popliteal artery.



Diagnosis :

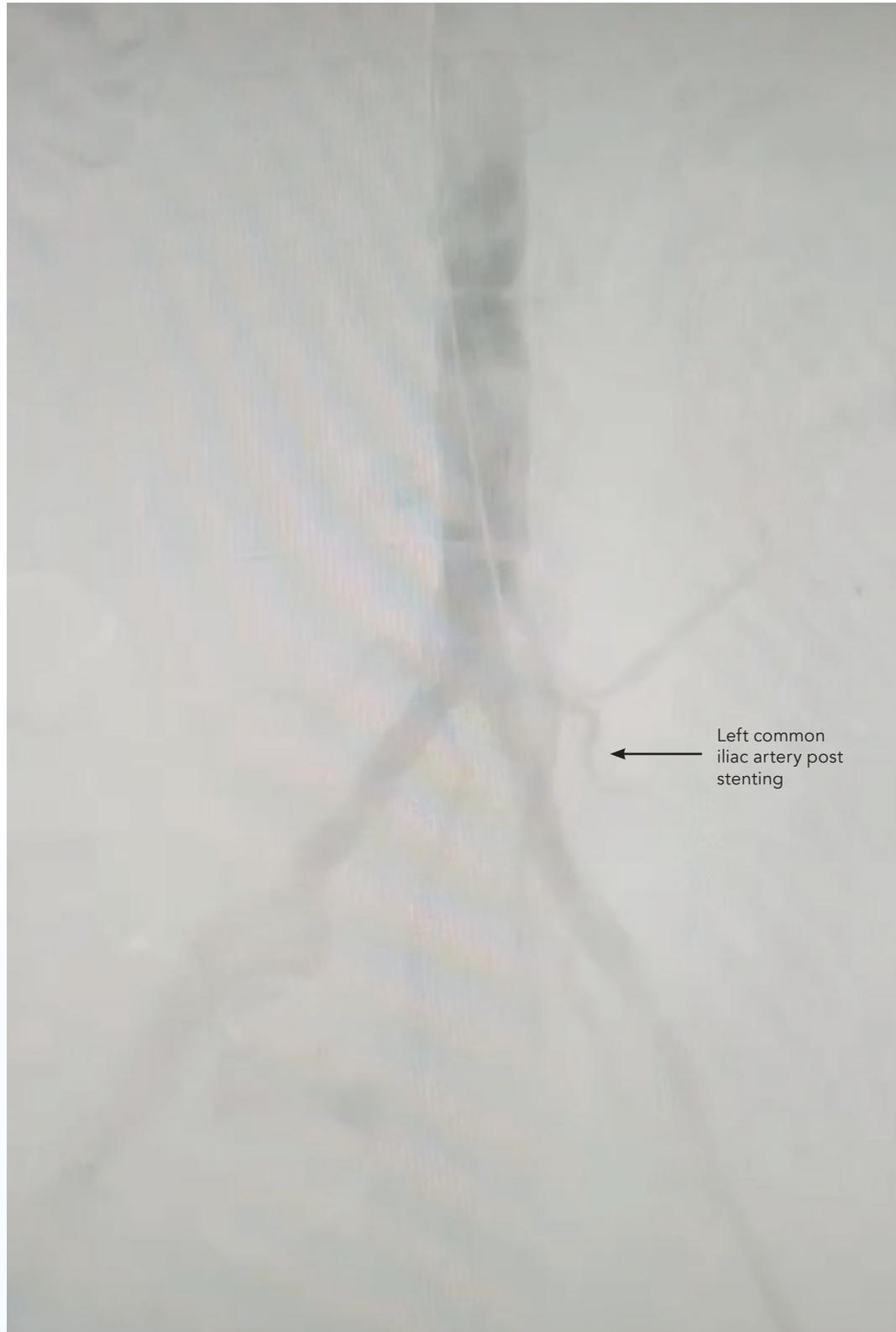
Aortoiliac disease, left iliac occlusion. Critical ischemia left leg.

Procedure :

Left common iliac artery stenting.

Post-procedure :

The left leg ankle-brachial index improved to 0.6, the foot turned warm, and the toe stump healed in three weeks.



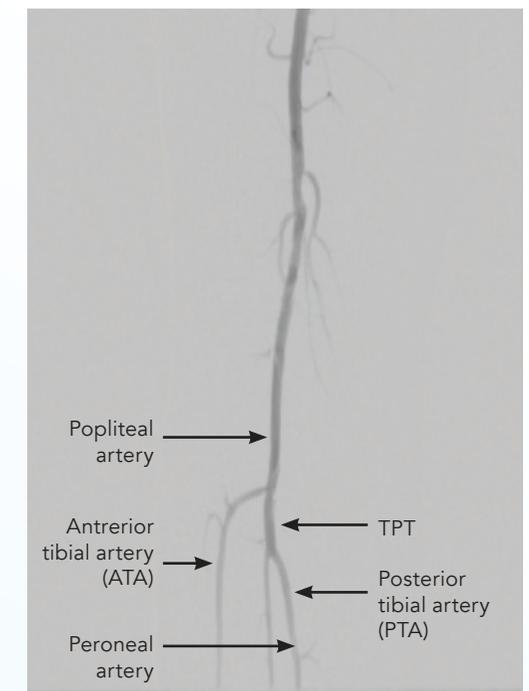
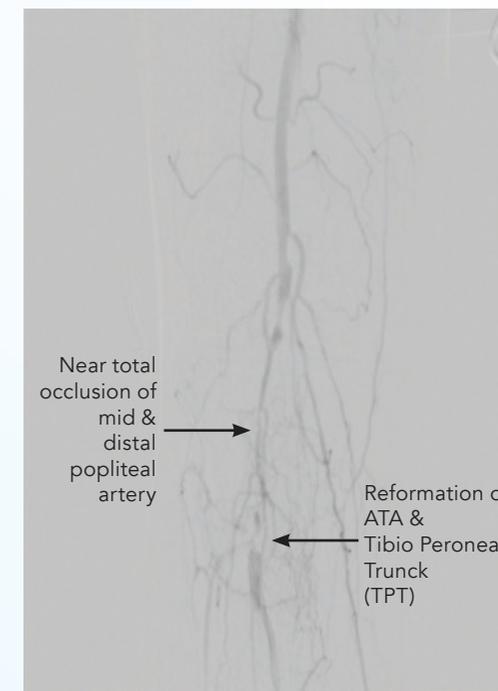
CASE 19: Left Fem-Pop Occlusion - Angioplasty

A 72-year-old male was referred with an ischemic non-healing right forefoot ulcer with sepsis for 10 days.

Risk Factors : Diabetes, hypertension.

Clinical Examination : Revealed absent right popliteal and pedal pulses with ankle-brachial index of 0.5.

Image : CT angiography showed complete occlusion of the right mid and distal popliteal artery with reformation of flow in the ATA and tibioperoneal trunk (TPT).



Diagnosis : Left fem-pop occlusion with critical ischemia.

Procedure : Left popliteal artery angioplasty.

Post-procedure : He developed palpable pedal pulse with ankle-brachial index of 1. The foot wound healed in 6 weeks' time.

CASE 20 : Right Popliteal Disease & Tibial Occlusion - Angioplasty

An 82-year-old male was referred with an ischemic ulcer in his right great toe associated with pain for 20 days.

Risk Factors : Diabetes, hypertension, CAD with EF 50%.

Clinical Examination : Revealed feeble right popliteal pulse and absent pedal pulse with ankle-brachial index of 0.5.

Image : CT angiography showed 60% focal stenosis in the distal right popliteal artery, near total occlusion of the ATA and TPT at their origin, and poor reformation of the PTA below mid-leg.



Diagnosis : Right popliteal disease with tibial occlusion and critical ischemia.

Procedure : Right popliteal, ATA and TPT angioplasty.

Post-procedure : He developed palpable dorsalis pedis pulse with ankle-brachial index of 0.9 and toe SPO2 100% in room air.

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Deputy Dean, Academics.



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Dr S IRFAN ZUBAIR,
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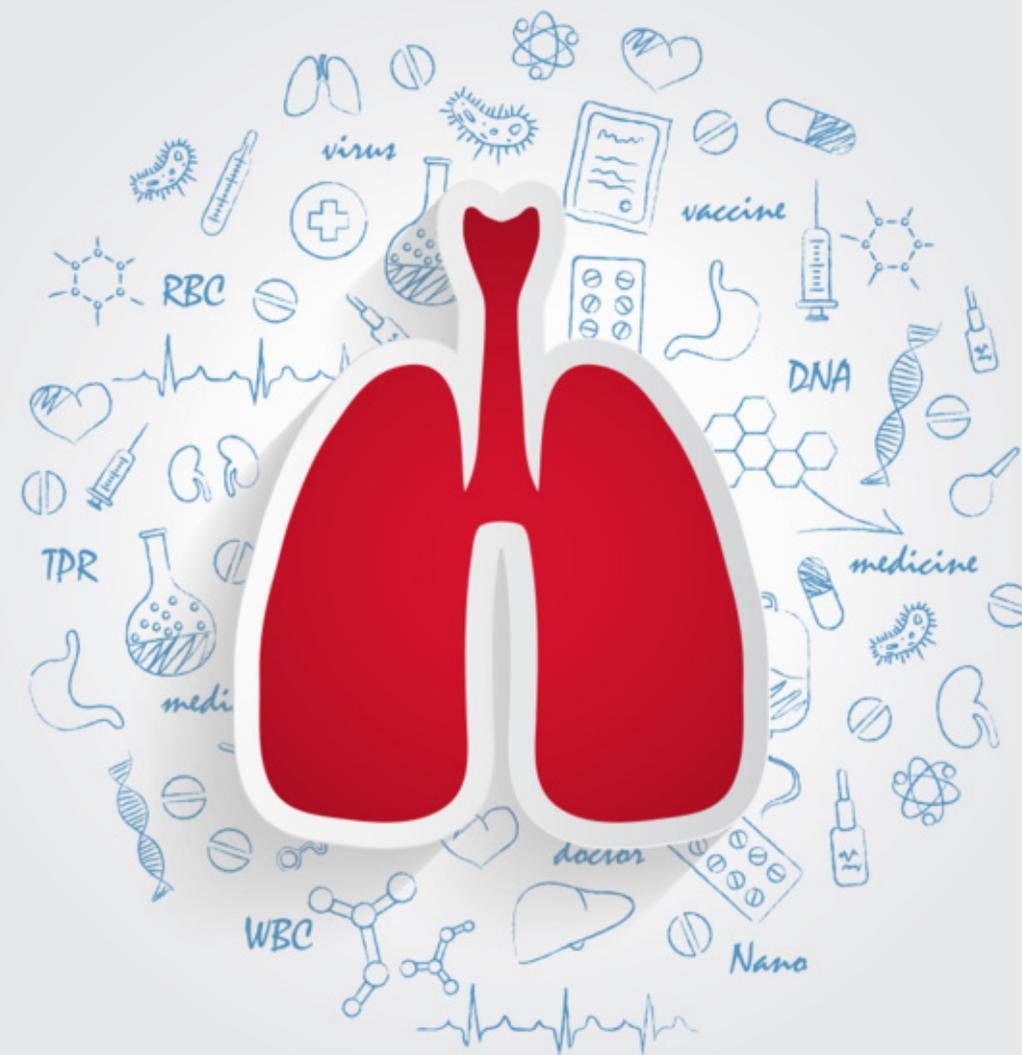


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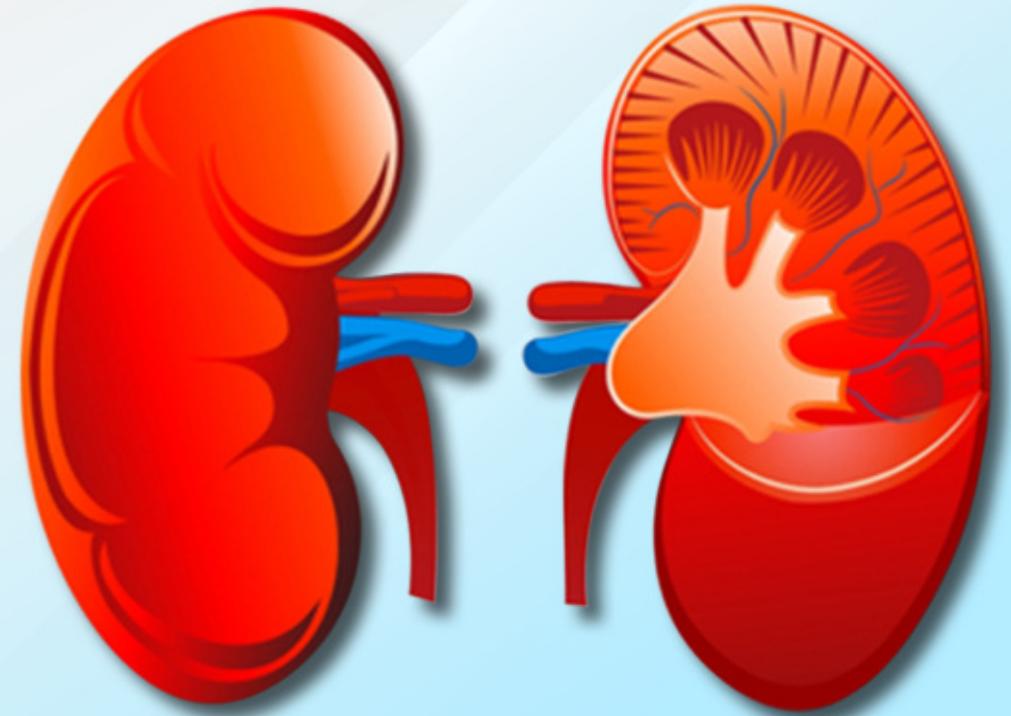
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