Core Modality 2								
Scan Number	**Date**	**Patient Hospital Number**	**Scan type**	**Pathology (Y/N)**	**Aided (A)/ Unaided (U)**	**Agreement with supervisor? Y/N**	**Comments, learning points, etc.**	**Supervisor**
1	February 08, 2024	RRKS612406	Left Leg Arterial Scan	Y	U	Y	US Doppler lower limb arteries Lt: Diffused intima thickening with minimal calcified plaque formation throughout. The CFA, PFA origin, SFA and popliteal arteries were patent with multiphasic flow signal (biphasic/triphasic). Diseased AT with multiple detected narrowing however remained patent with biphasic flow signal throughout. Diseased PT and peroneal artery but patent with biphasic flow signal from proximal to mid segment. Both the distal PT and peroneal arteries showed thready like flow to completely occluded segments but collateral flow was seen trying to supply flow to main distal PT and peroneal arteries.	Ivan Kalik
2	February 08, 2025	RRKK940691	Right Leg Arterial Scan	N	U	Y	US Doppler lower limb arteries Rt: The CFA, PFA origin and SFA were patent with triphasic waveforms throughout. The interposition graft popliteal artery was patent throughout with multiphasic flow (biphasic/triphasic). Smaller lumen diameter at the proximal anastomosis but currently not causing great impact in the flow within the lumen of the graft and no PSV ratio increase of >2.0 therefore will grade this as <50% stenosis. CONCLUSION Patent interposition graft popliteal artery with multiphasic flow (biphasic/triphasic). Patent arterial tree with multiphasic flow (biphasic/triphasic).	Ivan Kalik

3	February 7, 2024	RRKK546229	Right Leg Arterial Scan	N	U	Y	US Doppler lower limb arteries Rt: Patent with triphasic flow signal in the EIA and CFA. Distal CFA measures 18.3 mm just before proximal anastomosis insert of the graft. The graft was patent throughout with good triphasic flow velocities. Ectatic sausage shaped appearance measuring 11.2 mm in max AP at the distal body of the graft. The graft however remained well patent throughout with good triphasic flow signal. Patent normal dilated appearance of the distal anastomosis hood with no evidence of hemodynamic significant stenosis. Patent AT to the ankle with triphasic flow velocities. CONCLUSION Patent well-functioning femoral-AT graft throughout. Patent AT with triphasic flow signal to the ankle.	Ivan Kalik
4	February 7, 2025	RRKK686195	Right Leg Arterial Scan	Y	U	Y	US Doppler lower limb arteries Rt : *Challenging assessment due to involuntary twitching of legs.* Widespread calcifications throughout. The CFA and PFA were patent with good triphasic flow velocities. The SFA was patent throughout with increased EDV flow secondary to decreased wall resistance. Diseased popliteal artery proximally but patent. The distal half of the popliteal artery showed multiple narrowing and very thready flow that is suggestive of near total occlusion. Very diseased crural vessels that showed thready flow throughout. Collaterals were seen surrounding main crural vessels with some collaterals seen directly communicating to main vessels trying to maintain flow within lumen. Reduced flow velocities with dampened monophasic waveform from distal half of popliteal artery down to the trifurcation. CONCLUSION Severely diseased distal half of popliteal artery down to the arterial tree	Ivan Kalik

5	February 6, 2024	RRKK919616	Right Leg Arterial Scan	Y	U	Y	US Doppler lower limb arteries Rt: The graft is seen to insert from the superficial femoral artery to the TPT/PT origin distal anastomosis. Patent triphasic flow signal in the CFA and SFA before the proximal anastomosis insert of the graft. Occluded graft throughout from end-to-end anastomosis of mixed echogenic densities predominantly hypoechoic. Flow in PT is coming from the collateral before the distal anastomosis insert. Patent PT throughout with dampened monophasic waveform. CONCLUSION Occluded end to end anastomosis graft.	Ivan Kalik
6	February 6, 2024	RRKK448312	Left Leg Arterial Scan	Y	U	Y	US Doppler lower limb arteries Lt: Diffused intima thickening with widespread calcifications throughout. The distal CFA at the bifurcation area showed increased PSV ratio of >2.0 and flow becomes reduced with monophasic waveforms throughout distally. The SFA showed increased PSV ratio of >4.0 (82 cm/sec to 595 cm/sec) in the mid segment. The popliteal artery and trifurcation vessels are all well patent however with reduced flow velocities and monophasic waveforms to the ankle. Patent PFA with triphasic flow signal. CONCLUSION >50-74% narrowing in the CFA at the bifurcation level. Reduced flow velocities with monophasic waveforms throughout distally. >75% narrowing of the mid SFA. SFA appeared severely calcified in the mid-distal segments.	Ivan Kalik

7	February 6, 2024	RRKK197989	Right Leg Arterial Scan	Y	U	Y	US Doppler lower limb arteries Rt : Widespread intima thickening with minimal plaque formations throughout. The CFA,PFA origin, SFA, popliteal and TPT were patent with multiphasic (biphasic/triphasic) flow velocities.PT was occluded with flow reconstitution in the distal segment via collateral. Peroneal artery showed multi narrowing of <50% but patent throughout with multiphasic (tri/bi) waveforms. Proximal half AT was heavily diseased with minimal short occlusions but distal AT was patent with minimal narrowing of <50% and flow was multiphasic (bi/tri).	Ivan Kalik
8	February 6, 2024	RRKS695884	Right Leg Arterial Scan	Y	U	Y	US Doppler lower limb arteries Rt: Widespread intima thickening with minimal plaque formations throughout. The CFA and PFA were patent with triphasic flow velocities. The SFA was well patent throughout with slightly reduced luminal diameter in the mid/distal SFA segment d/t thickened intima but no evidence of significantly raised PSV. The popliteal artery and TPT were patent with triphasic flow velocities. Proximal PT was diseased with minimal flow and mid PT was occluded. The distal PT appeared patent due to collateralization however, the flow was reverse monophasic instead of antegrade which suggest that PT has been previously occluded before. Short occlusion in the proximal peroneal. The mid to distal peroneal was patent with triphasic flow velocities. Patent AT with triphasic flow velocities.	Ivan Kalik

9	February 6, 2024	RRKV736568	Left Leg Arterial Scan	Y	U	Y	US Doppler lower limb arteries Rt: Widespread calcifications throughout. Increased PSV ratio of >4.0 in the distal CFA at the bifurcation level (pre-stenotic-70 cm/sec; Stenotic- 460 cm/sec). Flow distally becomes monophasic with reduced velocities. Patent PFA origin with no significant stenosis. Slightly diseased SFA and popliteal arteries but patent with dampened monophasic waveforms throughout. Diseased AT but patent with dampened monophasic waveform. Heavily diseased PT with minimal short segmental occlusions noted with minimal collaterals. Not assessed peroneal. CONCLUSION >75% stenosis in the distal CFA/SFA origin. Severely diseased crural vessels. Diseased but patent AT. Minimal short segment occlusions in the PT w/minimal flow seen within lumen via collaterals.	Ivan Kalik
10	February 6, 2024	RRKV383462	Left Leg Arterial Scan	Y	U	Y	US Doppler lower limb arteries Lt: Diffused intimal thickening with minimal plaque formations throughout. The CFA, PFA origin, SFA, popliteal arteries and TPT were patent with triphasic flow velocities. Multi narrowing seen in the PT but patent with triphasic waveforms throughout. The peroneal artery was occluded few centimeters distal from the origin and remains occluded to the mid segment level with flow reconstitution distally. The distal peroneal artery appeared to have triphasic/pulsatile hyperemic waveform. Proximal to mid AT was occluded and remains occluded despite of the many collaterals directly communicating with the vessel. The most distal AT above ankle however has showed minimal flow within lumen via collateral with dampened monophasic PSV of 17.2 cm/sec.	Ivan Kalik

11	February 01, 2024	RRKV266770	Left Leg Arterial Scan	N	U	Y	US Doppler lower limb arteries Lt: Diffused intima thickening with widespread calcifications throughout. The CFA and PFA origin were patent with triphasic flow velocities. There was flow 2 cm distal to SFA origin and then it becomes occluded (chronic) to the mid-level segment of SFA. There was flow reconstitution at approximately 10-15 cm above knee level and flow was monophasic throughout distally. The popliteal artery was very diseased but patent. PT and peroneal arteries were occluded. AT proximal segment was very diseased with short segment of occlusion (chronic). AT mid to distal segment was diseased but patent with dampened monophasic flow.	Ivan Kalik
12	January 31, 2024	RRKK688216	Right Leg Arterial Scan	Y	U	Y	US Doppler lower limb arteries Rt: Widespread diffused intima thickening with calcifications throughout. Minimal calcifications in the CFA, PFA origin, SFA, popliteal and TPT but patent throughout with triphasic flow velocities. There was >75% stenosis in the proximal PT and distal flow becomes dampened monophasic but patent throughout. AT was occluded with very minimal flow in some segments via collaterals. Very minimal flow with occluded (chronic) segments in the proximal to mid peroneal artery and there were minimal collaterals seen. Distal peroneal artery above ankle was patent with dampened monophasic flow. Occluded DP.	Ivan Kalik
13	January 31, 2024	RRKK451495	Right Leg Arterial and Bypass	Y	U	Y	US Doppler lower limb arteries Rt: Slightly calcified CFA and PFA origin but patent with triphasic waveforms. The proximal anastomosis insert to CFA , the body of the graft and the distal anastomosis insert to PT was patent throughout with triphasic flow velocities. Native PT vessel distal to the anastomosis was slightly calcified but patent throughout with triphasic flow velocities. CONCLUSION Patent Fem-PT bypass graft	Ivan Kalik

14	January 31, 2024	RRKK688216	Right Leg Arterial Scan	Y	U	Y	US Doppler lower limb arteries Rt: Widespread diffused intima thickening with calcifications throughout. Minimal calcifications in the CFA, PFA origin, SFA, popliteal and TPT but patent throughout with triphasic flow velocities. There was >75% stenosis in the proximal PT and distal flow becomes dampened monophasic but patent throughout. AT was occluded with very minimal flow in some segments via collaterals. Very minimal flow with occluded (chronic) segments in the proximal to mid peroneal artery and there were minimal collaterals seen. Distal peroneal artery above ankle was patent with dampened monophasic flow. Occluded DP.	Ivan Kalik
15	January 30, 2024	RRKV212552	Left Leg Arterial Scan	Y	U	Y	US Doppler lower limb arteries Lt: Widespread calcifications throughout. The CFA and PFA origin are patent with triphasic flow signal. There is >75% stenosis in the proximal SFA. The mid SFA is occluded(chronic) with flow reconstitution in the distal SFA at approximately 10 cm above the knee area. Dampened monophasic flow throughout distally. The popliteal and TPT are patent with dampened monophasic flow velocities. The PT and peroneal are diseased but patent with dampened monophasic flow velocities. AT is occluded.	Ivan Kalik
16	January 29, 2024	RRKV501865	Left Leg Arterial Scan	Y	U	Y	US Doppler lower limb arteries Lt: Widespread heavy calcification and atheroma. The CFA, PFA origin, SFA and popliteal artery were patent with biphasic flow (hardened vessel). The ATA appeared heavily calcified and diseased throughout with numerous collaterals. Flow in the main vessel of mid AT showed reverse flow which signifies that it has been occluded previously but now minimally supplied by collaterals. The distal AT was monophasic. PTA was occluded as before.	Ivan Kalik

17	January 29, 2024	RRK7087054	Left Leg Arterial Scan	Y	U	Y	US Doppler lower limb arteries Lt: Heavy wide calcified vessels throughout. Patent with biphasic flow signals in the CFA, PFA origin and proximal SFA. There was 50-74% stenosis in the mid SFA and then the distal SFA becomes occluded (chronic) with flow reconstitution in the popliteal artery origin. Distal to this, the popliteal artery was patent with very reduced velocity and dampened monophasic flow. Distal PT and peroneal was patent with monophasic flow signal. Proximal AT appeared to have minimal monophasic flow however becomes occluded from mid to distal segment with collaterals noted.	Ivan Kalik
18	January 29, 2024	RRKK388099	Left Leg Arterial Scan	N	U	Y	US Doppler lower limb arteries Lt: Widespread intima thickening throughout. The CFA, PFA origin, SFA and popliteal arteries were all patent with good bi/triphasic flow velocities. The PT and AT were slightly diseased but patent throughout with bi/triphasic waveform velocities.	Ivan Kalik
19	January 26, 2024	RRKV778295	Left Leg Arterial Scan	Y	U	Y	US Doppler lower limb arteries Lt: Widespread calcifications throughout. Left iliac occlusion with mixed echogenicity appearance at approximately 4 cm in length with flow reconstitution at the level of external iliac artery. Diseased but patent CFA, SFA, PFA origin and popliteal arteries with dampened monophasic flow velocities throughout. Diseased but patent crural vessels with very dampened monophasic waveform and low flow velocities.	Ivan Kalik
20	January 26, 2024	RRKS908197	Right Leg Arterial Scan	Y	U	Y	US Doppler lower limb arteries Rt: The CFA, profunda origin, SFA and popliteal arteries were patent with triphasic flow signals. Occluded TPT of mixed echogenicity appearance. Occluded PT with mixed echogenicity predominantly hypoechoic appearance with evidence of minimal formation of collaterals. Peroneal was slightly diseased but patent with biphasic flow signals. Patent AT throughout that occludes 2-3 inches above the ankle level. DPA main vessel was occluded.	Ivan Kalik

21	January 26, 2024	RRKG623577	Left Leg Arterial Scan	Y	U	Y	US Doppler lower limb arteries Lt: The graft origin inserts at distal common femoral artery to mid PT segment of the calf. Good biphasic flow signal in the distal CFA. Patent graft with biphasic flow signal throughout proximal anastomosis to distal anastomosis. The PT segment distal to anastomosis site was patent with triphasic/pulsatile hyperemic flow. Patent AT proximal to distal segment with triphasic/pulsatile pulsatile hyperemic flow.	Ivan Kalik
22	January 26, 2024	RRKS745209	Left Leg Arterial Scan	Y	U	Y	US Doppler lower limb arteries Lt: Patent with biphasic flow velocities in the CFA, PFV origin and proximal to mid SFA. There is narrowing with increased PSV ratio of >2 (58 cm/sec to 188 cm/sec) in the mid/distal SFA therefore indicative of 50-74% stenosis and flow becomes monophasic throughout distally. Slightly diseased but patent popliteal artery with dampened monophasic flow.PT is occluded.AT is occluded and reconstitutes in the distal segment with monophasic waveform. Proximal peroneal artery is occluded and reconstitutes in the mid segment and flow continues distally with monophasic waveform.	Ivan Kalik
23	January 24, 2024	RRKK531536	Right Leg Arterial Scan	Y	U	Y	US Doppler lower limb arteries Rt: Diffused intima thickening with plaque formations throughout arterial segments of the right lower extremity. Heavily calcified distal CFA and PFA origin but patent with triphasic flow signal. Heavily calcified and diseased SFA throughout. The section of the distal SFA to proximal popliteal artery that was previously seen occluded 2 years ago has now showed evidence of collateralization and there was minimal flow throughout the main vessel however, it was poor monophasic flow with reduced peak systolic flow velocities. Very diseased crural vessels with evidence of collaterals but patent with monophasic flow signals throughout.	Ivan Kalik

24	January 18, 2024	RRKS540623	Left Leg Arterial Scan	Y	U	Y	US Doppler lower limb arteries Lt: Widespread calcifications throughout. Most proximal CIA not visualized due to bowel gas. Distal segment of CIA and EIA was patent with triphasic waveform and there was no evidence of significantly raised PSV that may suggest tight narrowing/stenosis despite of calcifications. There was increased PSV ratio of >4.0 noted in the CFA with PSV elevated from 56 cm/sec to 303 cm/sec. Low flow velocity with damp monophasic waveform distal to stenotic area extending to the proximal SFA. The mid SFA was chronically occluded with flow reconstitution in the distal segment via collateral but waveform remains monophasic with flow PSV of 15 cm/sec. Low flow continues throughout popliteal artery and distal calf vessels. Patent popliteal artery with damped monophasic waveform throughout. There were evidence of collaterals seen in the PT and AT segment which may indicate possibility that the main vessels could have almost been near totally occluded considering the very damped waveform and PSV values. However, at its current state, both PT and AT showed minimal color flow with detected minimal Doppler signal in spectral therefore confirming its patency throughout however waveform was very damped monophasic and flow velocities were low between PSV of 8-20 cm/sec (very diseased but patent). There was flow in the proximal PFA with no significantly raised PSV that suggest presence of tight stenosis despite of calcifications. CONCLUSION >75% stenosis in the CFA. Mid SFA occlusion (chronic). Crural vessel disease (PT and AT). Peroneal not visualized d/t shadowing secondary to calcification and considering vessel depth.	Ivan Kalik

25	January 12, 2024	RRKV680420	Right Leg Arterial Scan	Y	U	Y	US Doppler lower limb arteries Rt: Widespread calcifications throughout. The CFA and PFA origin were patent with triphasic waveform pattern. The proximal to mid SFA was patent with triphasic waveform pattern. The distal SFA showed increased PSV ratio of >2.0 (PSV elevated from 123 cm/sec to 388 cm/sec). Dampened monophasic with reduced PSV of 14 cm/sec distal to the stenotic area. The popliteal artery was patent however there was a focal narrowing which demonstrated increased PSV ratio of >4.0 (PSV elevated from 22 cm/sec to 695 cm/sec). Flow distally remains dampened with low velocities throughout. With ultrasound limitation: The PTA showed no colour filling in color mode that demonstrated minimal to no colour filling in power Doppler yet spectral Doppler was sensitive and displayed flow velocity of 15-22 cm/sec PSV from proximal to distal segment. There was flow seen in color mode with PSV of 56 cm/sec few cm from AT origin that went to minimal to no colour filling in power Doppler yet spectral Doppler was sensitive and displayed low flow velocities between 15-20 cm/sec PSV. The distal AT segment was consistent to absent color flow and Doppler signal.The proximal peroneal artery showed absent color flow and Doppler signal with flow detected in the mid segment via collateral but dampened monophasic. The distal peroneal artery unable to detect patency due to vessel depth and smaller calibre in size distally. CONCLUSION SFA- Patent with 50-75% stenosis Popliteal artery- Patent with 50-75% stenosis PT- Spectral Doppler demonstrated reduced dampened flow velocities from proximal to distal. AT- Spectral Doppler demonstrated reduced dampened flow velocities from proximal to mid AT. Distal AT occluded. Peroneal artery- Occluded proximally with low dampened flow in the mid via collateral and unable to visualized small calibre size peroneal distally.	Ivan Kalik