

Number	Date	Type of Scan
1	9/5/23	Pseudo aneurysm Duplex
2	16/5/23	Left Arm Arterial
3	17/5/23	Left Leg Arterial
4	23/5/23	Pseudo aneurysm Duplex
5 & 6	24/5/23	Bilateral Arterial Duplex
7	31/5/23	Left Leg Arterial
8	5/6/23	Right Leg Arterial
9	5/6/23	Left Leg Arterial
10	7/6/23	Right Arm Arterial
11	12/6/23	Right Leg Arterial
12	12/6/23	Right Leg Arterial
13	14/6/23	Right Leg Arterial
14	19/6/23	Left Leg Arterial
15	19/6/23	Right Leg Arterial
16	19/6/23	Right Leg Arterial
17 & 18	19/6/23	Bilateral Leg Arterial
19	3/7/23	Right Leg Arterial
20	4/7/23	AAA surveillance
21	10/7/23	AAA surveillance
22	10/7/23	AAA surveillance
23	12/7/23	Fistula surveillance
24 & 25	24/7/23	Bilateral Leg Arterial

VASCULAR PSEUDOANEURYSM DUPLEX:

RIGHT SIDE

CFA: Patent with normal Doppler signals

CFV: Patent with normal Doppler signals

Comments: Irregularly shaped area seen close to the common femoral artery but no colour filling seen in the area with no connection to vein or artery seen. Scanned with general ultrasound, please see US groin report

Summary: No evidence of pseudoaneurysm or fistula in the RIGHT groin

UPPER LIMB ARTERIAL DUPLEX:

LEFT SIDE:

The subclavian and axillary arteries are patent with triphasic flow. Raised velocities (310cm/s) noted in the supraclavicular subclavian artery however as flow remains triphasic no significant disease suspected.

The brachial and ulnar arteries are patent throughout with monophasic flow but no evidence of significant stenosis.

The radial artery is patent from origin to mid forearm, there is then an ~10cm occlusion in the distal forearm.

The radial artery is seen refilling at the wrist via collaterals with monophasic flow. No evidence of pseudoaneurysm or fistula in the left wrist.

INCIDENTAL FINDING WRIST: Mixed echogenicity area

Please note: this was an arterial scan carried out by a vascular specialist and therefore detailed analysis of the MSK anatomy has not been carried out. Please consult an MSK specialist sonographer if there is further clinical concern regarding the non-vascular findings.

SUMMARY LEFT ARM: ~10cm radial artery occlusion. No evidence of pseudoaneurysm or fistula in the wrist.

LOWER LIMB ARTERIAL DUPLEX:

SYMPTOMS: Left calf claudication after ~5-10 minutes.

The aorta is widely patent and measures a maximum AP diameter of 1.5cm

LEFT SIDE:

The common and external iliac arteries are widely patent with triphasic flow.

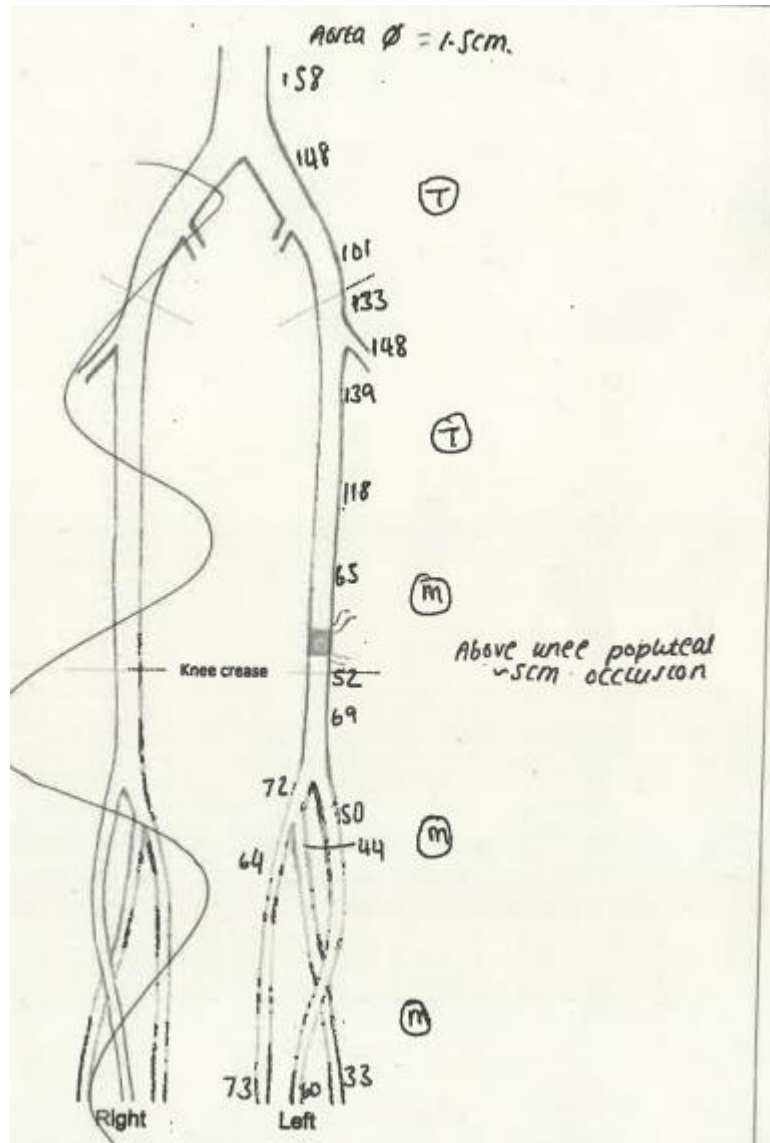
The CFA is patent with mild atheroma and triphasic flow.

The profunda artery origin is widely patent with triphasic flow.

The SFA is patent with triphasic flow to mid thigh, in the distal thigh flow is monophasic.

The popliteal artery is OCCLUDED at the adductor hiatus for ~5cm and is seen refilling via collaterals above knee level with monophasic flow.

Three vessel run-off with minimal atheroma and monophasic flow seen to ankle.



VASCULAR PSEUDOANEURYSM DUPLEX:

RIGHT SIDE

3 days post angio with right femoral access.

CFA: Patent with normal Doppler signals

CFV: Patent with normal Doppler signals

No evidence of pseudoaneurysm or fistula in the RIGHT groin

Comment: Mixed echogenic structure in the right groin - no connection to the artery or vein visualised. ?haematoma or ?thrombosed pseudoaneurysm. Please note: this was a Vascular scan carried out by a vascular specialist and therefore detailed analysis of the MSK anatomy has not been carried out. Please consult an MSK specialist sonographer if there is further clinical concern regarding the non-vascular findings.

LOWER LIMB ARTERIAL DUPLEX:

SYMPTOMS: Bilateral calf claudication, onset after ~10-15 minutes of walking.

AORTA: 2.9cm (on surveillance)

RIGHT SIDE:

Poor views of the common iliac artery (CIA) due to bowel gas, where seen irregularly atheromatous with biphasic signals.

The external iliac artery was irregularly atheromatous with monophasic signals.

The CFA is patent proximally with monophasic flow but OCCLUDED distally.

The profunda artery is OCCLUDED at origin and is seen refilling via collaterals after ~5cm.

The SFA is OCCLUDED from origin and is seen refilling at adductor hiatus.

The popliteal artery is patent with irregular and calcified atheroma and monophasic flow

The ATA is OCCLUDED throughout.

The peroneal artery is patent with irregular atheroma and monophasic flow seen to ankle.

The posterior tibial artery was seen segmentally in the proximal and mid calf and appears to be OCCLUDED from distal calf to ankle

LEFT SIDE:

Poor views of the common iliac artery (CIA) and external iliac artery (EIA) due to bowel gas, where seen irregularly atheromatous with biphasic signals.

The CFA is irregularly atheromatous with monophasic signals

The profunda artery contains a SEVERE STENOSIS at the origin (42-298cm/s, PSVR 7, >75%, monophasic)

The SFA is OCCLUDED approx 10cm from origin and seen refilling via collaterals at the knee level popliteal artery

The below knee popliteal artery is patent with irregular and calcified atheroma with monophasic flow

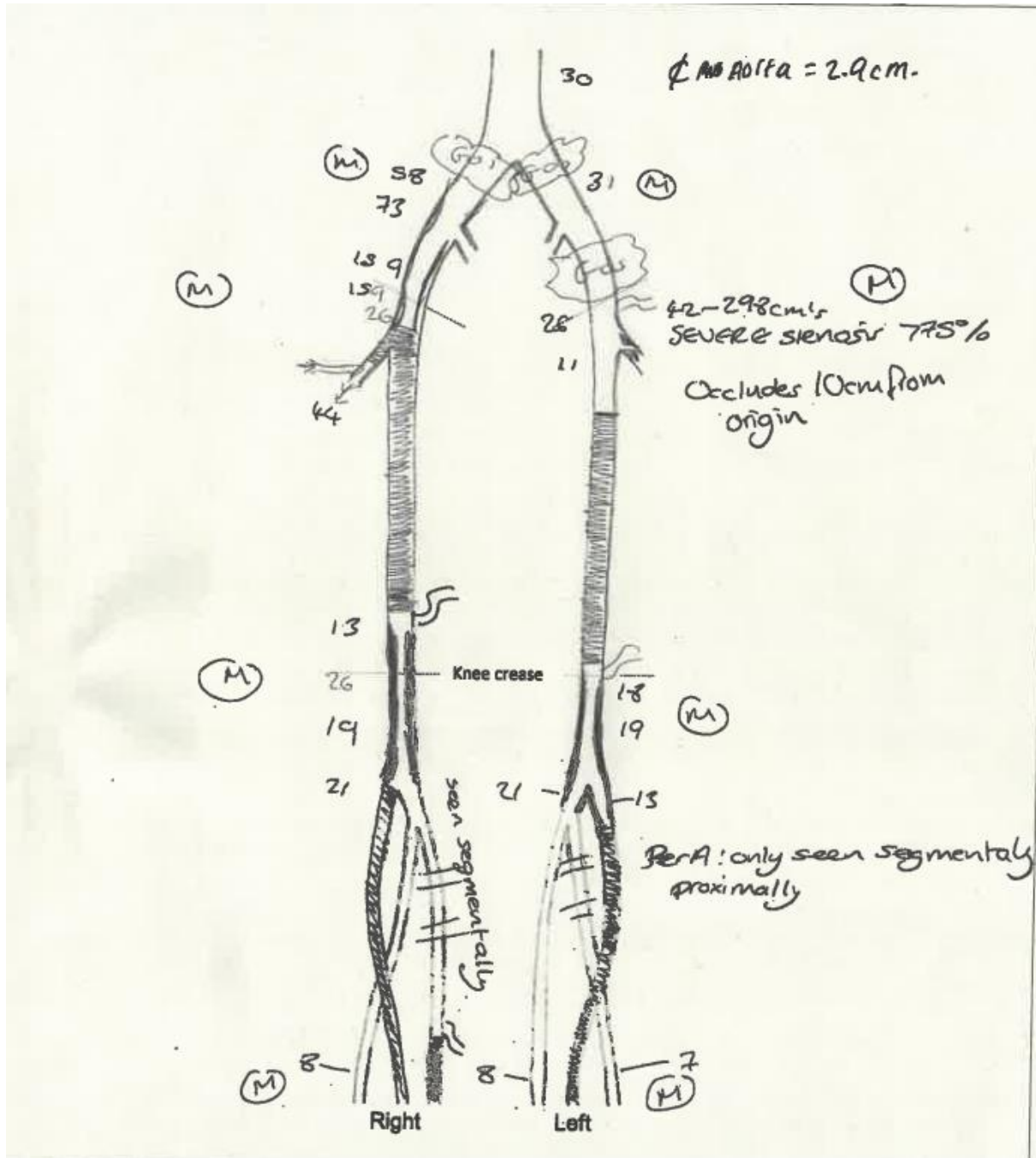
The ATA is OCCLUDED just beyond the origin to ankle.

The peroneal artery is seen segmentally in the proximal calf then in continuity to ankle

The posterior tibial artery is patent with irregular atheroma and monophasic flow to ankle

Schematic available

Technical Quality: Average



LOWER LIMB ARTERIAL DUPLEX:

SYMPTOMS: Left calf claudication, particularly when walking uphill or on uneven surfaces.

AORTA: 1.4cm

LEFT SIDE:

Aorto-iliacs are normal with triphasic flow.

The CFA, profunda and SFA are normal with triphasic flow.

The popliteal artery is OCCLUDED from above knee level for ~12cm.

Some recanalised flow is seen in the proximal TPT which is seen refilling via collaterals, the distal TPT is OCCLUDED for ~1.5cm.

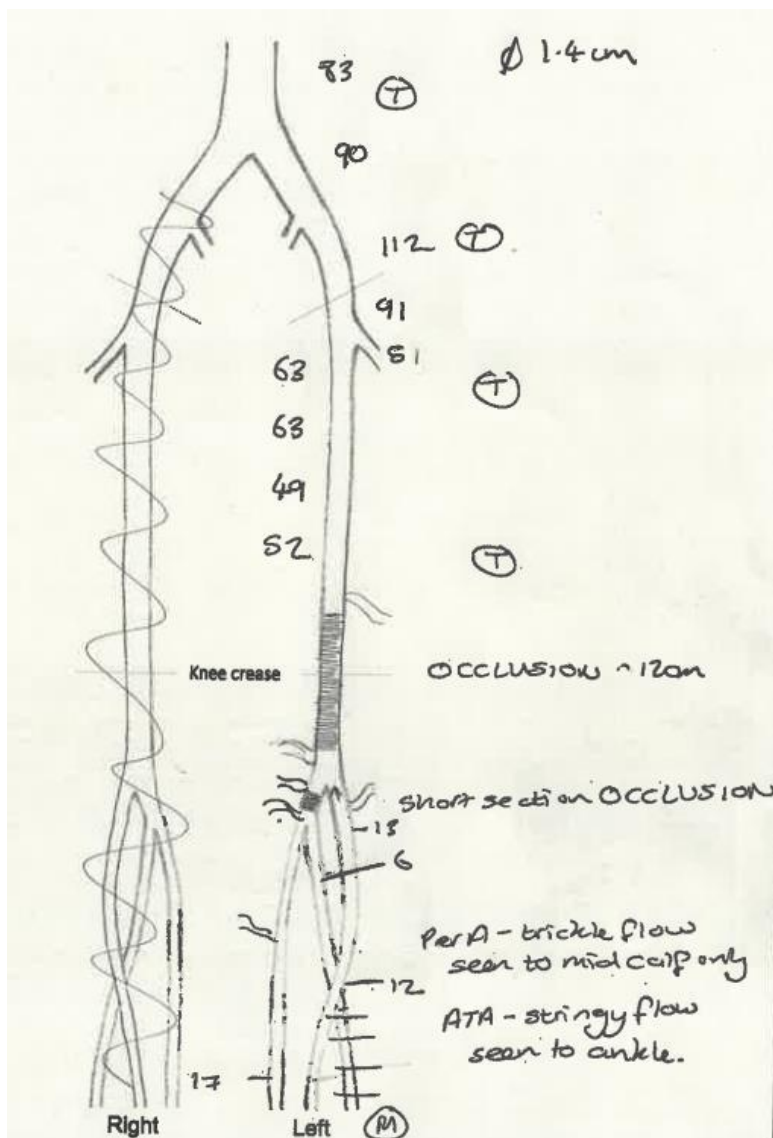
There is a short section of retrograde flow at the ATA origin. The proximal ATA is then seen refilling via collaterals and flow is monophasic and seen to ankle.

The peroneal artery was visualised with trickle flow from origin to mid calf but was not visualised in distal calf.

The PTA is the dominant vessel with monophasic flow seen to ankle.

Schematic available

Technical Quality: Good



LOWER LIMB ARTERIAL DUPLEX:

SYMPTOMS: Patient reporting bilateral leg pain. Right EIA stent.

AORTA: 1.3cm, biphasic flow

RIGHT SIDE:

The CIA is patent with mild atheroma and monophasic flow

Proximal to the stent, there is a moderate 50-75% STENOSIS at the EIA origin (PSV 75-197cm/s, PSVR 2.6, mono)

The EIA stent is widely patent with biphasic flow throughout. Distal to the stent, the EIA contains mild atheroma.

The common femoral artery and profunda artery (origin) are patent with minimal atheroma and triphasic flow.

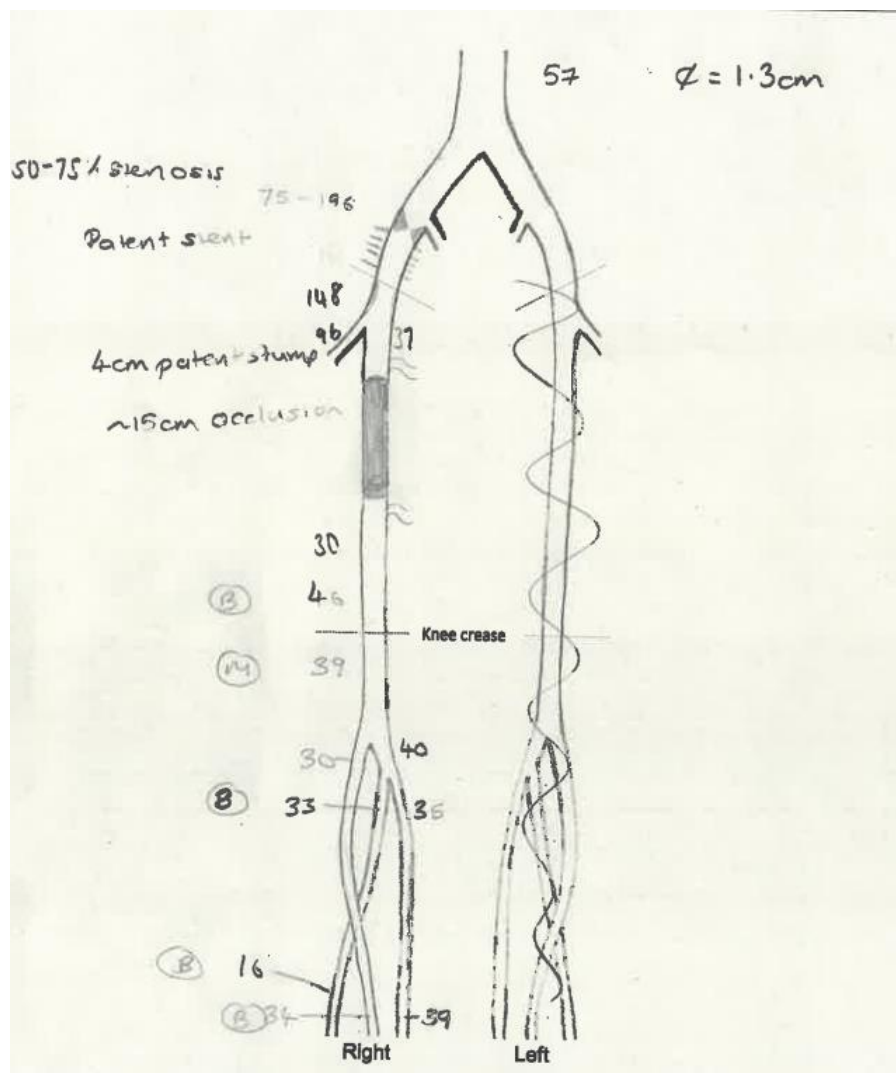
The SFA is patent at origin for ~4cm before OCCLUDING for ~15cm. The SFA is seen refilling via collaterals in the distal thigh, flow is monophasic.

The popliteal artery and TPT are normal with monophasic flow.

3 vessel run-off seen to ankle with mild atheroma and biphasic flow.

Schematic available

Technical Quality: Good



LOWER LIMB ARTERIAL DUPLEX:

SYMPTOMS: Left diabetic foot sepsis.

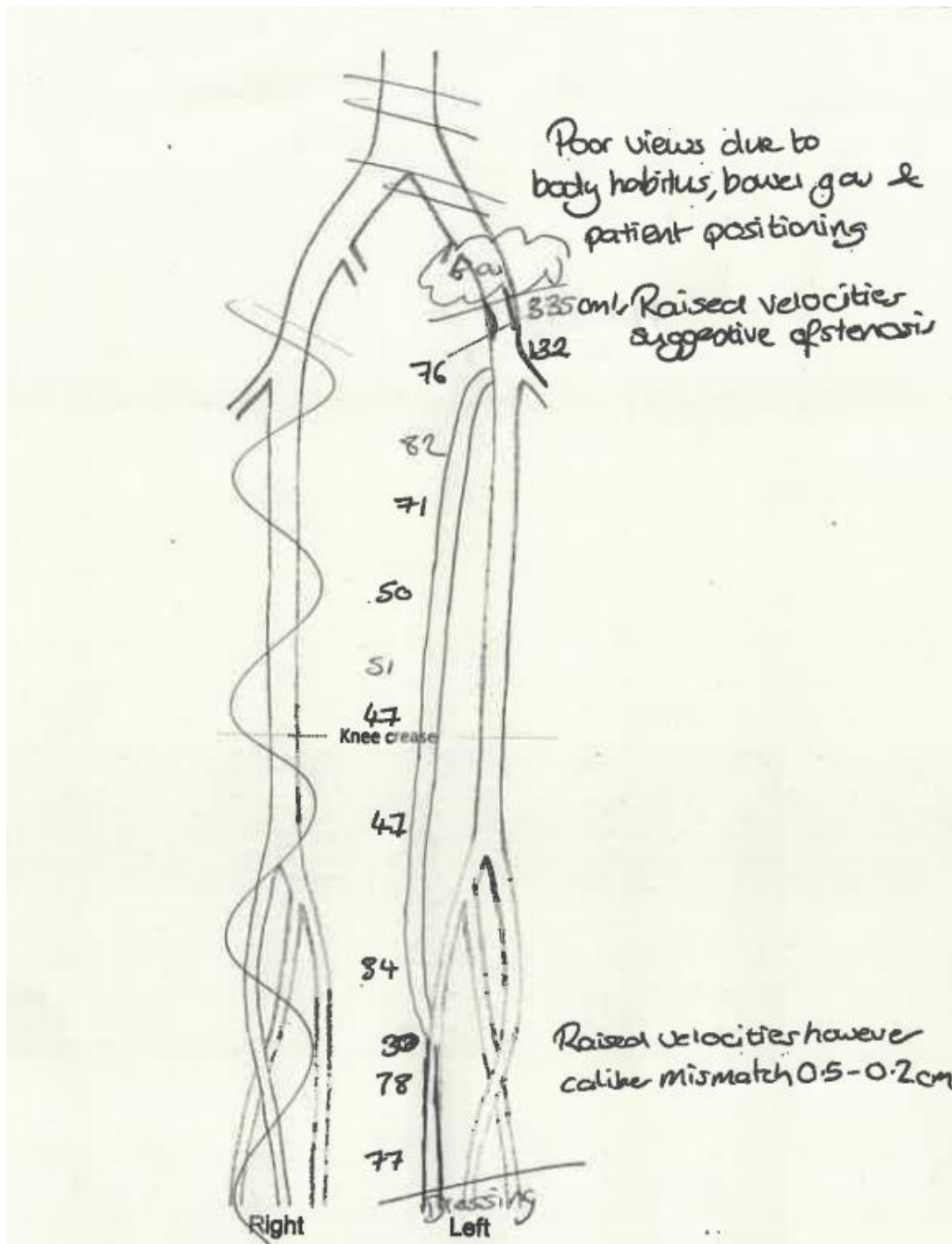
LEFT SIDE:

Unable to visualise the CIA or proximal EIA due to bowel gas and high BMI. Raised velocities seen in the distal EIA (335cm/s) indicates significant iliac disease.

The CFA is patent with turbulent flow.

The Fem-PTA graft is patent with bi/monophasic flow throughout. Doubling in velocities seen at the distal anastomosis (30-78cm/s, PSVR 2.6) however likely due to calibre mismatch (0.5cm distal anastomosis compared to 0.2cm PTA) rather than stenosis.

The PTA outflow is calcified but patent to ankle with monophasic flow.



UPPER LIMB ARTERIAL DUPLEX:

SYMPTOMS: Clinician noted faint ulnar pulse upon examination and cool 4th and 5th fingers.

RIGHT SIDE:

The subclavian, axillary, brachial, radial and ulnar arteries are normal with tri/biphasic flow throughout and no evidence of significant peripheral arterial disease.

LOWER LIMB ARTERIAL DUPLEX:

SYMPTOMS: Right foot ulcer

AORTA: 1.8cm

RIGHT SIDE:

The common iliac artery was not visualised due to bowel gas.

The external iliac and common femoral arteries are mildly atheromatous with triphasic signals. Triphasic signals are seen at the profunda artery origin.

The SFA contains mild atheroma and the signals become monophasic distally.

There is a mild-moderate stenosis in the proximal popliteal (45-94cm/s, PSVR 2.1, 50-75%, monophasic, 1cm).

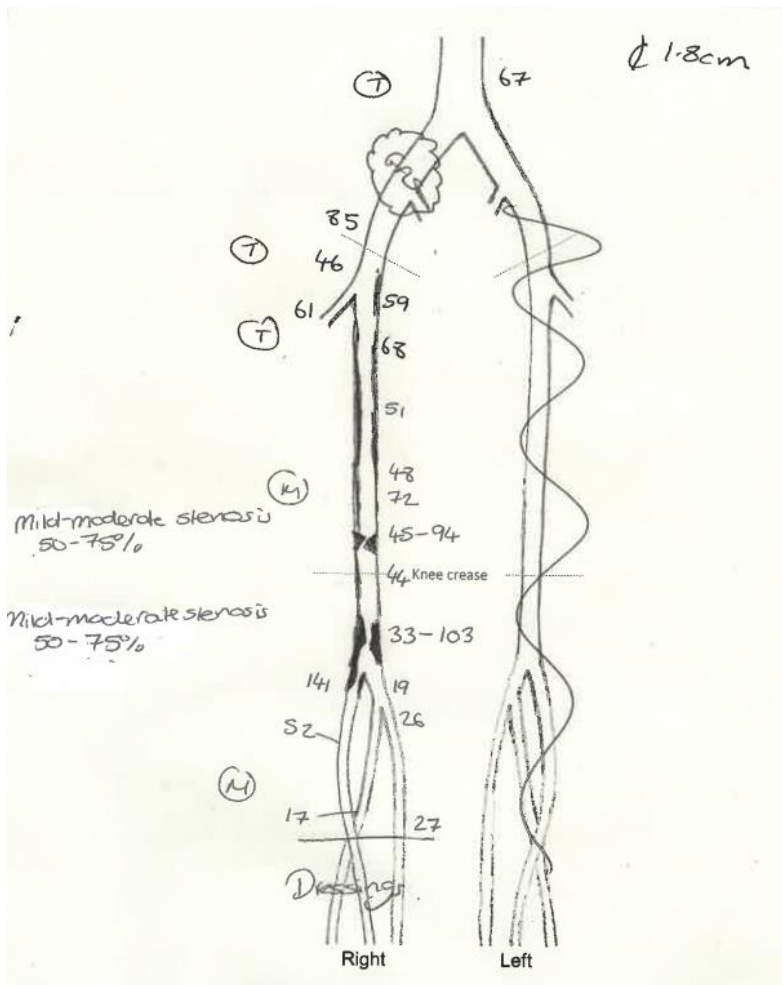
There is a moderate stenosis in the distal popliteal which extends into the ATA origin as a severe stenosis (33-141cm/s, PSVR 4.3, >75%, monophasic, 1cm).

The posterior tibial, peroneal and anterior tibial arteries are calcified but seen to mid calf with monophasic signals throughout.

The distal calf was not assessed due to dressings

Schematic available on request

Technical Quality: Good



LOWER LIMB ARTERIAL DUPLEX:

SYMPTOMS: Right sided rest pain and tissue loss

RIGHT SIDE:

Aorta and common iliac not visualised due to bowel gas, patient body habitus and tenderness.

The monophasic doppler signals in the external iliac artery suggest possible occlusion or stenosis proximally.

The external iliac and common femoral arteries contain mild atheroma with monophasic doppler signals. There is the presence of some collateral vessels in the groin.

The profunda artery origin is not visualised in its normal anatomical location, likely occluded.

There is a mild to moderate stenosis at the SFA origin (50-75%, 69-165cm/s, PSVR 2.4, 1.5cm length, monophasic).

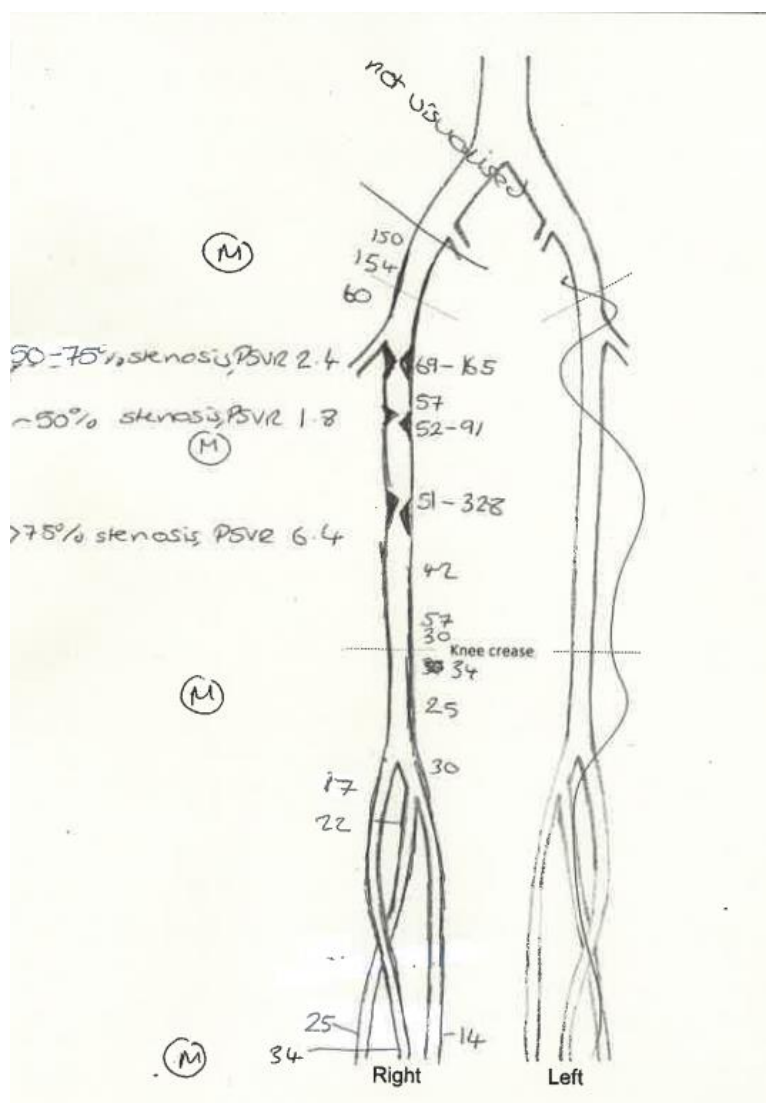
There is a mild stenosis in the proximal SFA (~50%, 52-91cm/s, PSVR 1.8, 1cm length, monophasic) which is followed by a SEVERE stenosis in the mid SFA (>75%, 51-328cm/s, PSVR 6.4, 5cm length, monophasic)

The popliteal artery contains mild calcified atheroma with monophasic signals.

The peroneal, posterior tibial and anterior tibial arteries are calcified with mild atheroma but seen to ankle.

Schematic available on request

Technical Quality: Average



LOWER LIMB ARTERIAL DUPLEX:

SYMPTOMS: Right calf claudication after ~200 yards.

AORTA: 1.5cm

RIGHT SIDE:

The common, external and internal iliac arteries were patent with no visible atheroma and triphasic flow.

The common femoral artery was patent with mild calcified atheroma and triphasic flow.

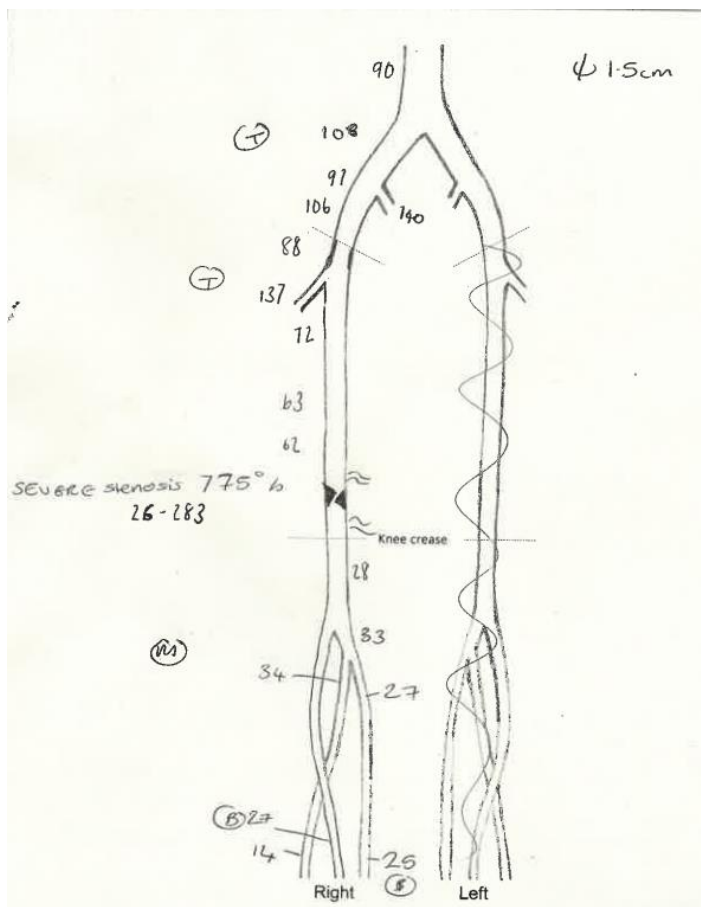
The SFA and profunda artery (origin) were normal with triphasic flow.

There is a short SEVERE >75% STENOSIS of the above knee popliteal artery (PSV 26-283cm/s, PSVR 11, Mono). Collaterals seen refilling the popliteal artery distal to this.

Normal TPT and 3 vessel run-off seen to ankle with bi/monophasic flow.

Schematic available

Technical Quality: Good



LOWER LIMB ARTERIAL DUPLEX:

SYMPTOMS: Patient reports left leg claudication

AORTA: 2.1cm

LEFT SIDE:

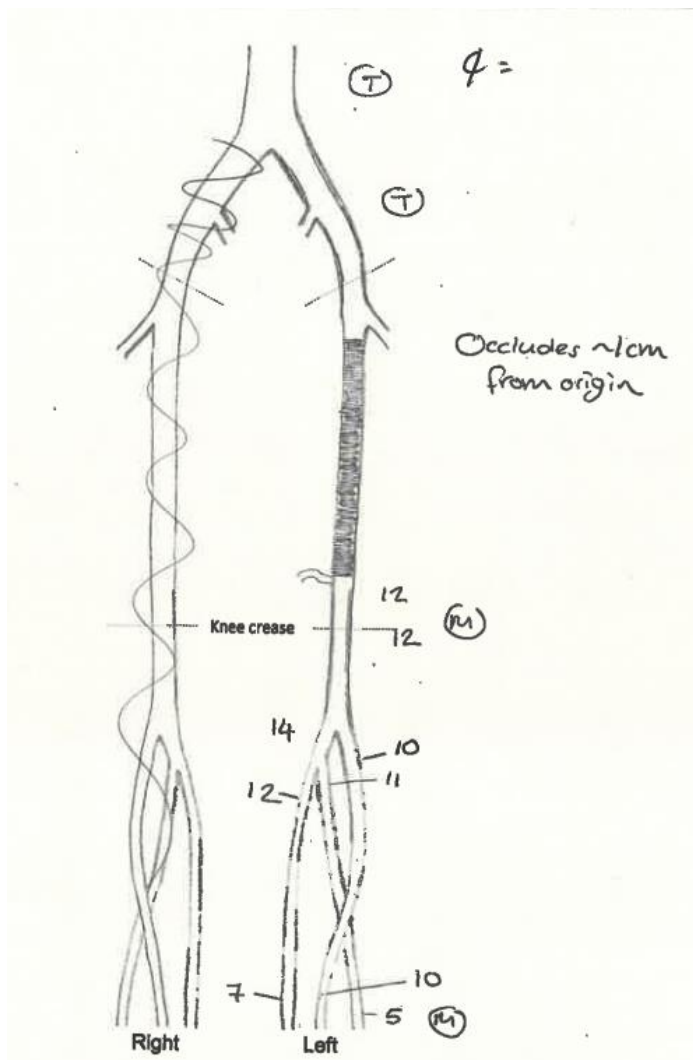
Aorto-iliacs are patent with mild atheroma and triphasic flow.

The CFA and profunda artery (origin) are patent with mild atheroma.

The SFA OCCLUDES approx 1cm from the origin and is seen refilling via collaterals at the level of the adductor hiatus (approx. 25cm occlusion)

The popliteal artery is patent with mild atheroma and monophasic flow.

3 vessel run-off seen to ankle with mild atheroma and monophasic flow.



LOWER LIMB ARTERIAL DUPLEX:

SYMPTOMS: Right leg calf claudication.

AORTA: 1.8cm

RIGHT SIDE:

Aorto-iliacs are normal with triphasic flow.

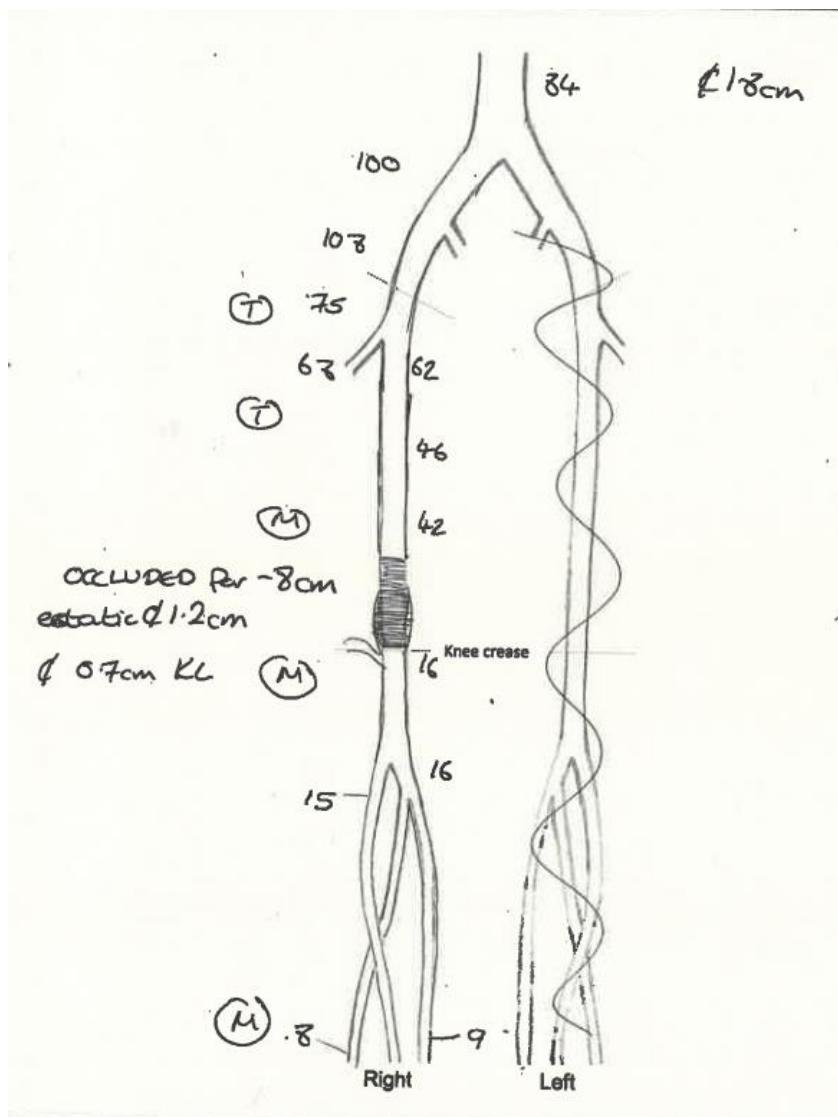
The common femoral artery (CFA) and profunda artery (origin) are normal with triphasic flow.

The femoral artery (SFA) is patent proximally with triphasic flow and mild atheroma, the SFA is OCCLUDED at adductor level for ~8cm.

The OCCLUDED above knee popliteal artery is ectatic (measuring a maximum AP diameter of 1.2cm, at knee level the popliteal artery measures 0.7cm)

The popliteal artery is refilled via collaterals at knee level with monophasic flow.

Anterior tibial, peroneal and posterior tibial arteries are seen to ankle with monophasic flow throughout



LOWER LIMB ARTERIAL DUPLEX:

SYMPTOMS: Right calf pain on walking 500 yards

AORTA: 1.5cm Triphasic

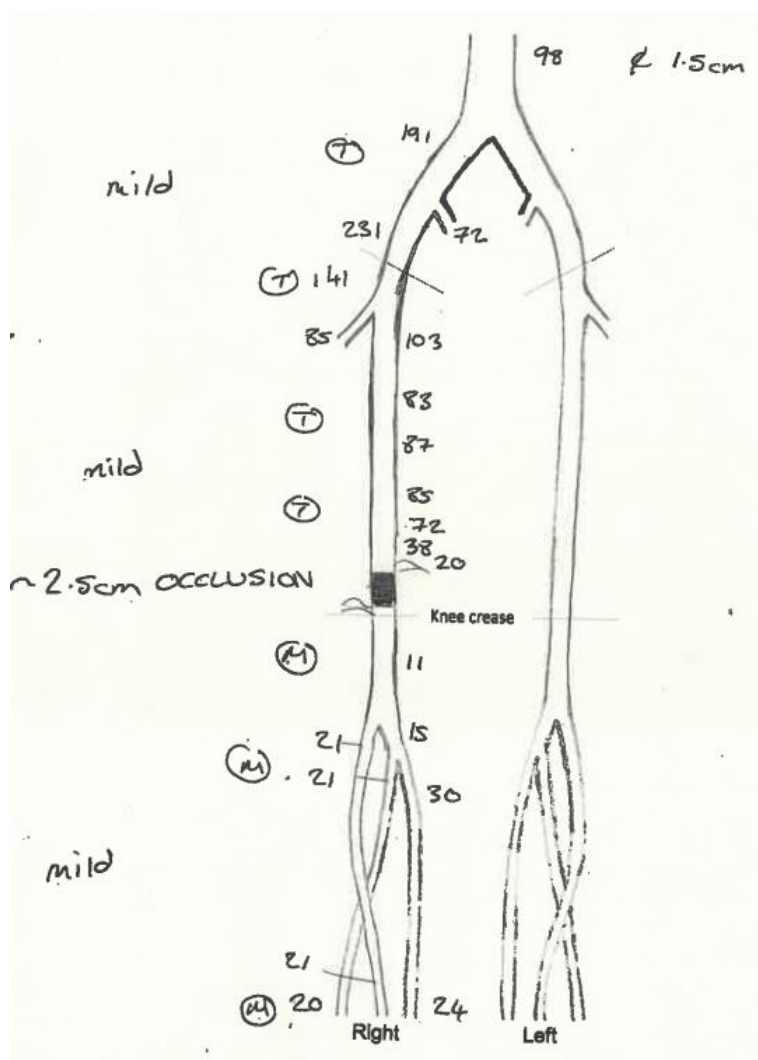
RIGHT SIDE:

The aorta, common iliac and external iliac arteries are mildly atheromatous with triphasic flow throughout

The common femoral (CFA) , profunda artery origin and femoral (SFA) arteries are mildly atheromatous with triphasic flow

The above knee popliteal artery is OCCLUDED for 2.5cm and seen refilling at knee level via collaterals.

The posterior tibial, anterior tibial and peroneal arteries are seen to ankle with mild atheroma and monophasic flow throughout.



LOWER LIMB ARTERIAL DUPLEX:

SYMPTOMS: Bilateral claudication R>L. No pain at rest or tissue loss.

AORTA: 1.8cm

RIGHT SIDE:

The common iliac artery is patent with mild atheroma and biphasic flow

There is a SEVERE >75% stenosis of the mid external iliac artery (PSV 78-406cm/s, PSVR 5, Mono)

The common femoral and profunda artery (origin) are patent with mild atheroma and monophasic flow.

The SFA is patent with mild irregular atheroma and monophasic flow.

The popliteal artery is normal with monophasic flow.

3 vessel run-off with monophasic flow seen to ankle.

LEFT SIDE:

The common iliac artery is patent with mild atheroma and monophasic flow.

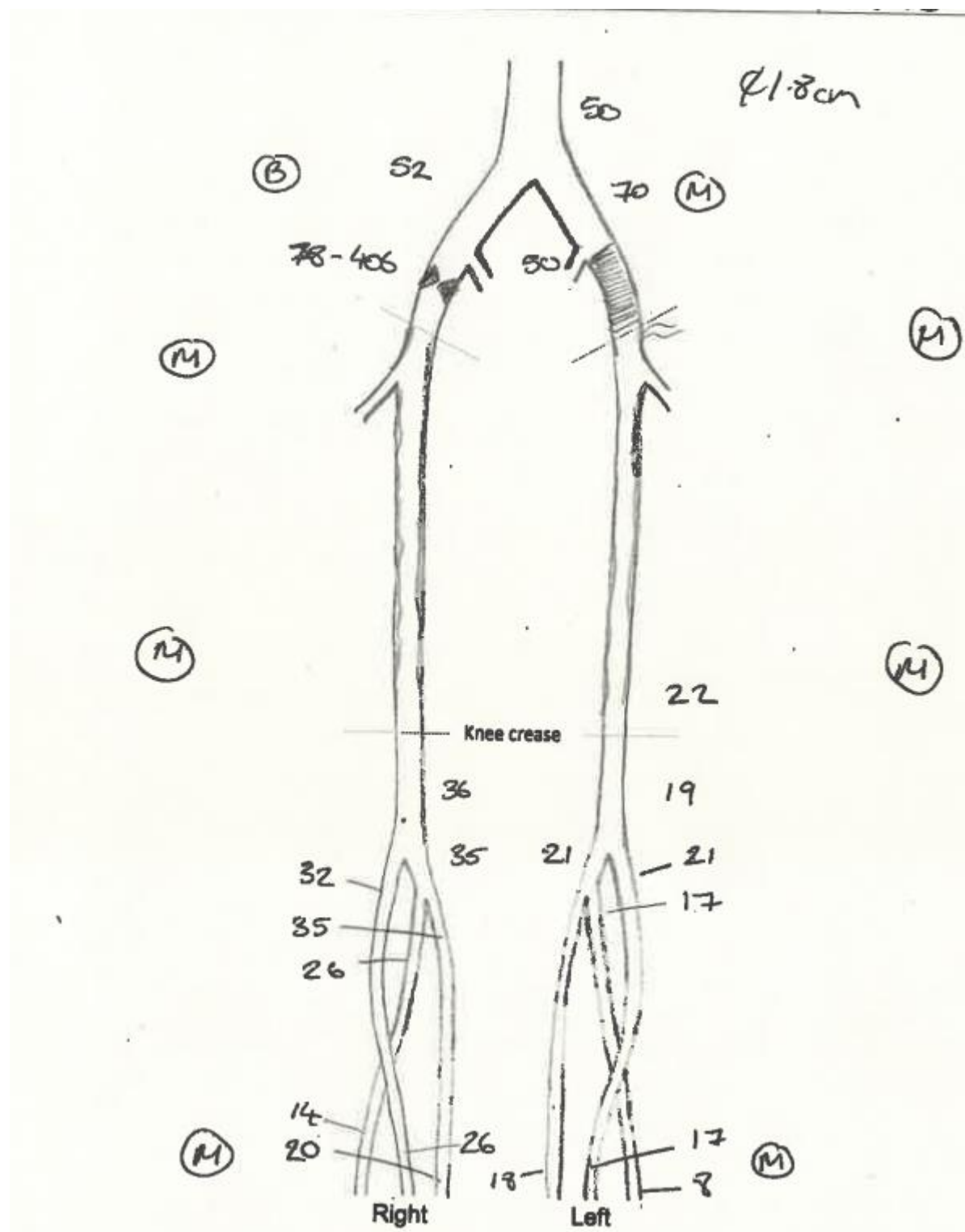
The external iliac artery is OCCLUDED throughout. The internal iliac artery is patent with turbulent flow.

The common femoral artery is refilled proximally via collaterals and is then patent with mild atheroma and monophasic flow.

The SFA is patent with mild irregular atheroma and monophasic flow.

The popliteal artery is normal with monophasic flow.

3 vessel run-off with monophasic flow seen to ankle.



LOWER LIMB ARTERIAL DUPLEX:

SYMPTOMS: Right calf pain after walking 3-5 mins

AORTA: 1.3cm

RIGHT SIDE:

The aorta, common iliac, external iliac, common femoral arteries and the origin of the profunda artery appear normal with triphasic flow.

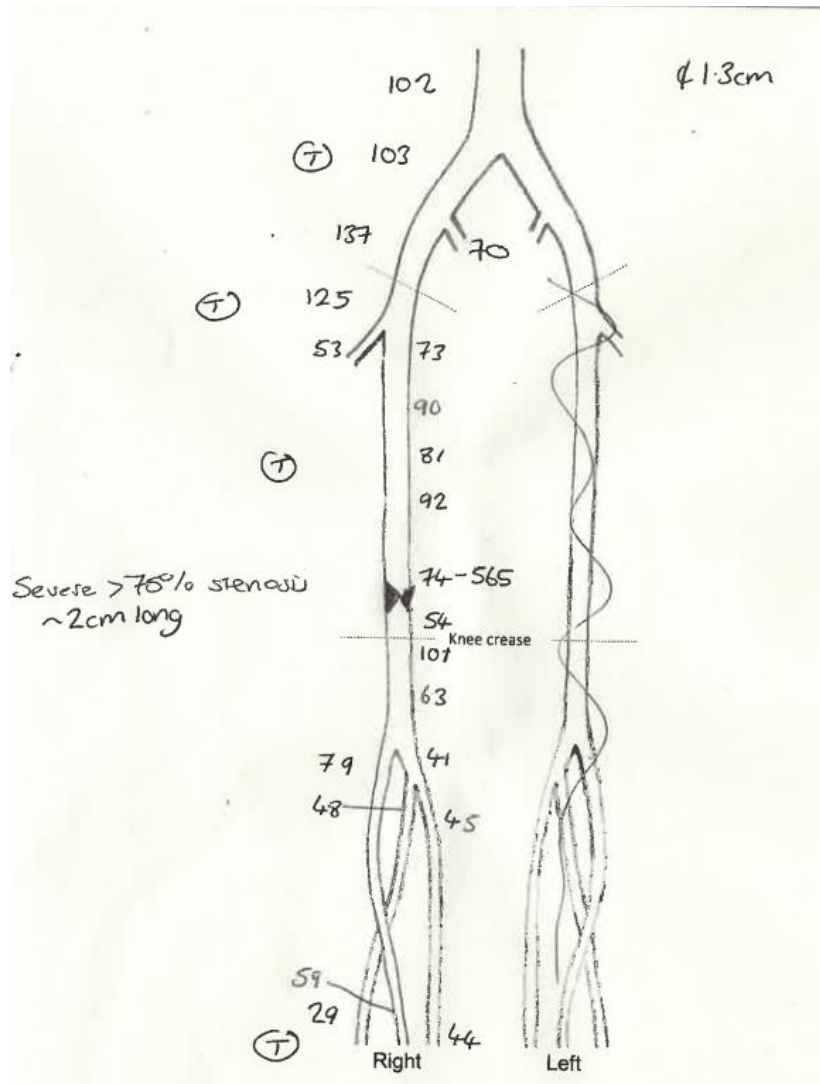
There is a SEVERE stenosis in the SFA at the level of the adductor hiatus for approx 2cm ($>75\%$, PSVR 7.6, 74-565cm/s, Mono)

The popliteal artery appears normal with monophasic flow.

The anterior tibial, posterior tibial and peroneal arteries are seen to ankle and appear normal with triphasic flow

Schematic available

Technical Quality: Good



ANEURYSM SURVEILLANCE: All diameter measurements are maximum inner-wall to inner-wall AP (anterior to posterior).

Infra-renal Abdominal Aorta TS 4.7cm LS 4.7cm

There is a new dissection flap noticed just proximal to the bifurcation not previously seen on ultrasound. Previous dissection flaps noted on CT in 2017.

SUMMARY: AAA 4.7cm.

This patient will be automatically recalled for surveillance in 6 months (04/01/2024). Patient is under the care of Mr Neary. The surgical intervention threshold is set at 5.5cm.

ANEURYSM SURVEILLANCE: All diameter measurements are maximum inner-wall to inner-wall AP (anterior to posterior).

Infra-renal Abdominal Aorta TS 3.4cm LS 3.4cm

SUMMARY: AAA 3.4cm.

This patient will be automatically recalled for surveillance in 12 months (10/07/2024). Patient is under the care of Mr Neary. The surgical intervention threshold is set at 5.5cm.

ANEURYSM SURVEILLANCE: All diameter measurements are maximum inner-wall to inner-wall AP (anterior to posterior).

Infra-renal Abdominal Aorta TS 4.7cm LS 4.7cm

Right common iliac artery 2.7cm

Left common iliac artery 2.3cm

Left popliteal artery proximally - Challenging views due to severe calcification however dilatation measured between 0.5cm and 0.9cm (occluded as seen previously).

Patient reports left leg aching when walking and was advised to speak to GP.

SUMMARY: AAA 4.7cm.

This patient will be automatically recalled for surveillance in 6 months (10/01/2024). Patient is under the care of Mr Neary. The surgical intervention threshold is set at 5.5cm.

VASCULAR ACCESS ARM ARTERIOVENOUS FISTULA (AVF) ASSESSMENT: LEFT ARM DUPLEX

LEFT brachial-cephalic AVF

SYMPTOMS: Patient reports no problems with fistula at the moment. Fistula not currently in use

Brachial Arterial Inflow: normal, volume flow 1842ml/min (previous scan was 1677ml/min)

Brachial artery distal to arterial anastomosis: Antegrade flow, no evidence of steal.

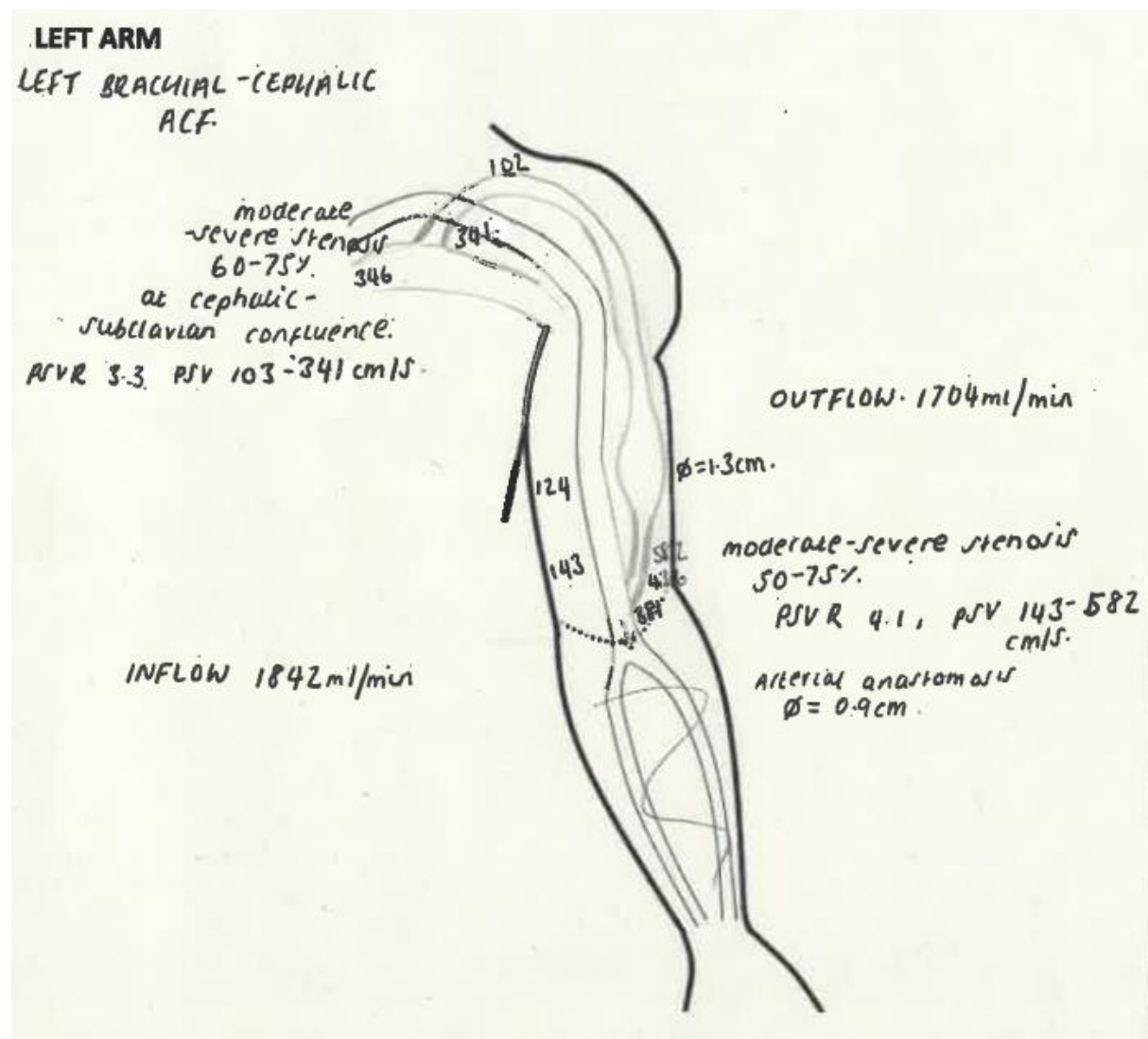
Arterial Anastomosis: long section of moderate-severe disease (50-75%) extending from the arterial anastomosis to mid upper arm (PSVR 4.1, 143-582cm/s).

Cephalic venous outflow dilatation to 1.3cm (seen previously).

Outflow volume flow: 1704ml/min (previous scan was 1586ml/min).

Cephalic venous outflow junction with subclavian vein: moderate-severe disease 60-75% (PSVR 3.3, 103-341cm/s)

SUMMARY LEFT AVF: Moderate-severe (50-75%) stenosis from arterial anastomosis to mid upper arm. Moderate-severe (60-75%) stenosis at cephalic venous outflow junction with subclavian vein.



LOWER LIMB ARTERIAL DUPLEX:

SYMPTOMS: Bilateral calf and foot pain on walking. Previous angioplasty 2006

AORTA: 2.5cm

RIGHT SIDE:

The common iliac and external iliac are mildly atheromatous with triphasic signals.

There is small calcified plaque in the common femoral artery however triphasic signals.

There is a mild-moderate stenosis at the profunda origin (118-243cm/s, PSVR 2.1, ~50%, biphasic)

There are raised velocities at the SFA origin however <50% (118-161cm/s)

The SFA contains calcified irregular atheroma and there is a 3cm OCCLUSION seen in the mid section. Distally the SFA is atheromatous with monophasic signals

The popliteal and TPT contain irregular calcified atheroma and have monophasic signals.

The posterior tibial and peroneal arteries are calcified but seen in continuity to ankle with monophasic signals.

The anterior tibial artery is seen proximally and in the distal calf but appears OCCLUDED from prox calf to distal calf.

LEFT SIDE:

There is slight reduced visualisation of the distal common iliac and proximal external iliac due to bowel gas however where seen they are mildly atheromatous with triphasic signals.

There is small calcified plaque in the common femoral artery however triphasic signals.

The profunda artery origin is patent with triphasic signals

The SFA contains calcified irregular atheroma this is causing a long 5cm MODERATE stenosis in the prox-mid thigh (38-142cm/s, PSVR 3.7, 50-75%, monophasic).

There is a 5cm OCCLUSION in the SFA at the level of the adductor hiatus.

The popliteal artery is refilling via collaterals above the knee. The popliteal artery and TPT contain irregular calcified atheroma and have monophasic signals.

The posterior tibial and peroneal arteries are calcified but seen in continuity to ankle with monophasic signals.

The anterior tibial artery is seen proximally and in the distal calf but appears OCCLUDED from prox calf to distal calf.

