# Case Study – series 1

This study relates to a 72-year-old female patient:

You are to consider the clinical information and images provided.

There are 6 questions.

Total marks - 22

# Clinical History

- Patient:
- A pleasant small in stature 72-year-old female
- Past relevant history
  - Right lower limb angiogram,
  - Angioplasty, and
  - Superficial Femoral Artery (SFA) stent insertion +
  - Thrombolysis.
- Current presentation
  - Acute rest pain especially at night relieved by sitting or standing
  - There is no other history provided
  - This is also a 6-month post-operative follow-up

  - GP suggests exercise testing may be challenging

# Patient pressures were performed

- Pressures (mmHg)are as follows:

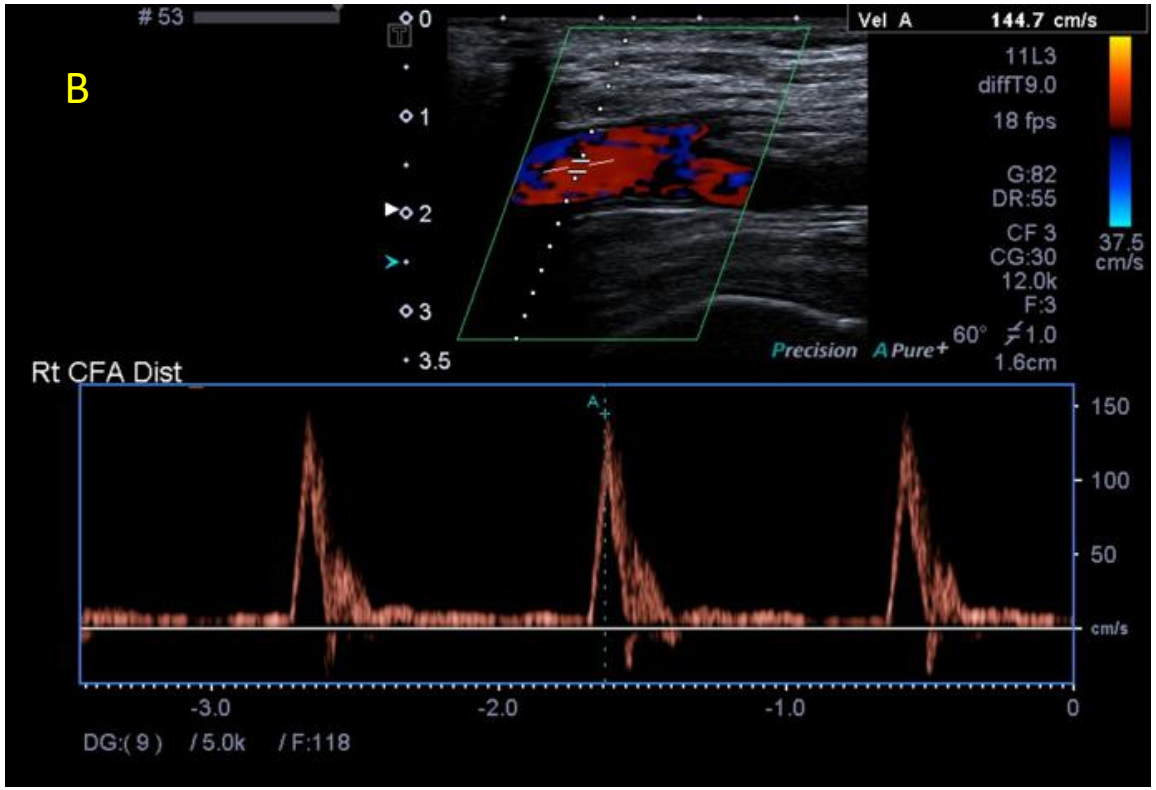
| Right Brachial BP | 132 | Left Brachial BP | 138 |
|---|---|---|---|
| Posterior Tib | inaudible | Posterior Tib | 78 |
| Dorsalis Pedis | inaudible | Dorsalis Pedis | 74 |
| Toe | No signal | Toe | 46 |

# Images:

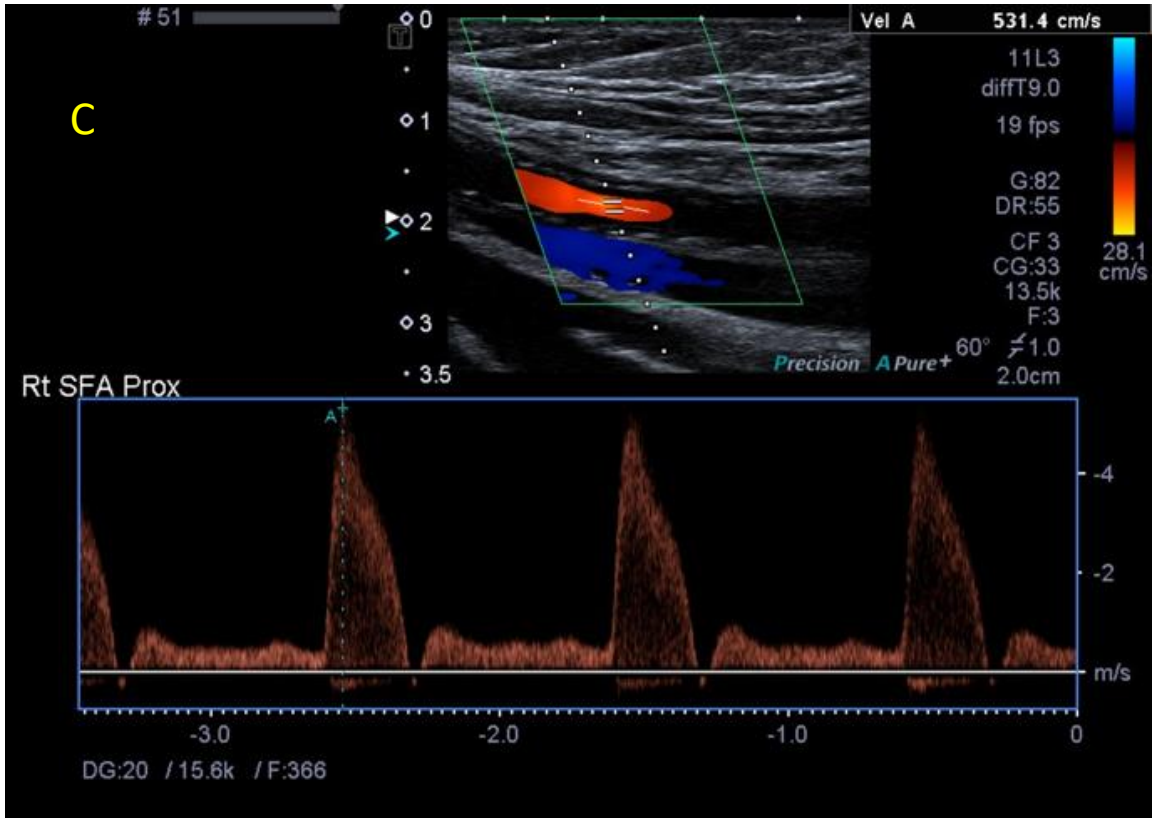
- The following sample of images (A- K) taken in this examination.
- Look closely at the spectral and Colour Doppler images
- They have been clearly labelled

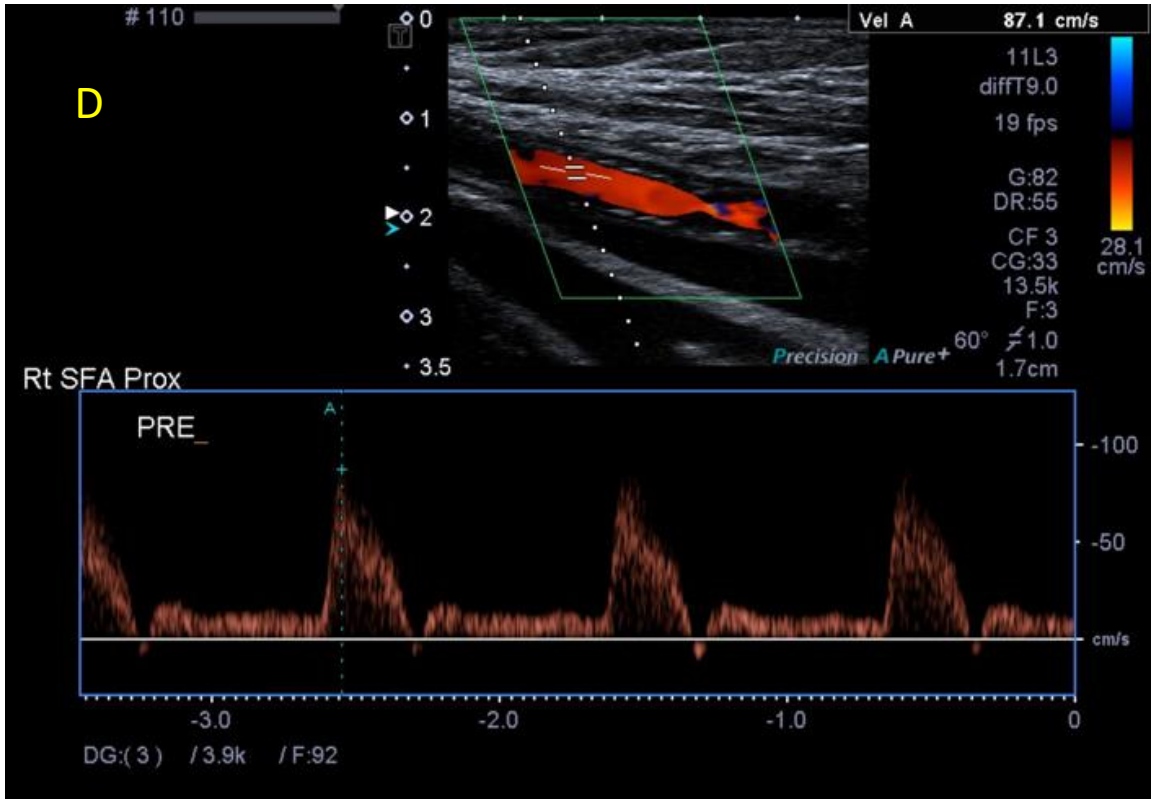
# Images A & B


A
# 40
Vel A
147.2 cm/s
11L3
diffT9.0
17 fps
G:82
DR:55
CF 3
CG:30
12.0k
F:3
37.5
cm/s
60°
1.0
2.4cm
Precision A Pure+
Rt CFA Prox
150
100
50
cm/s
-3.0
-2.0
-1.0
0
DG:15 / 5.0k / F:118

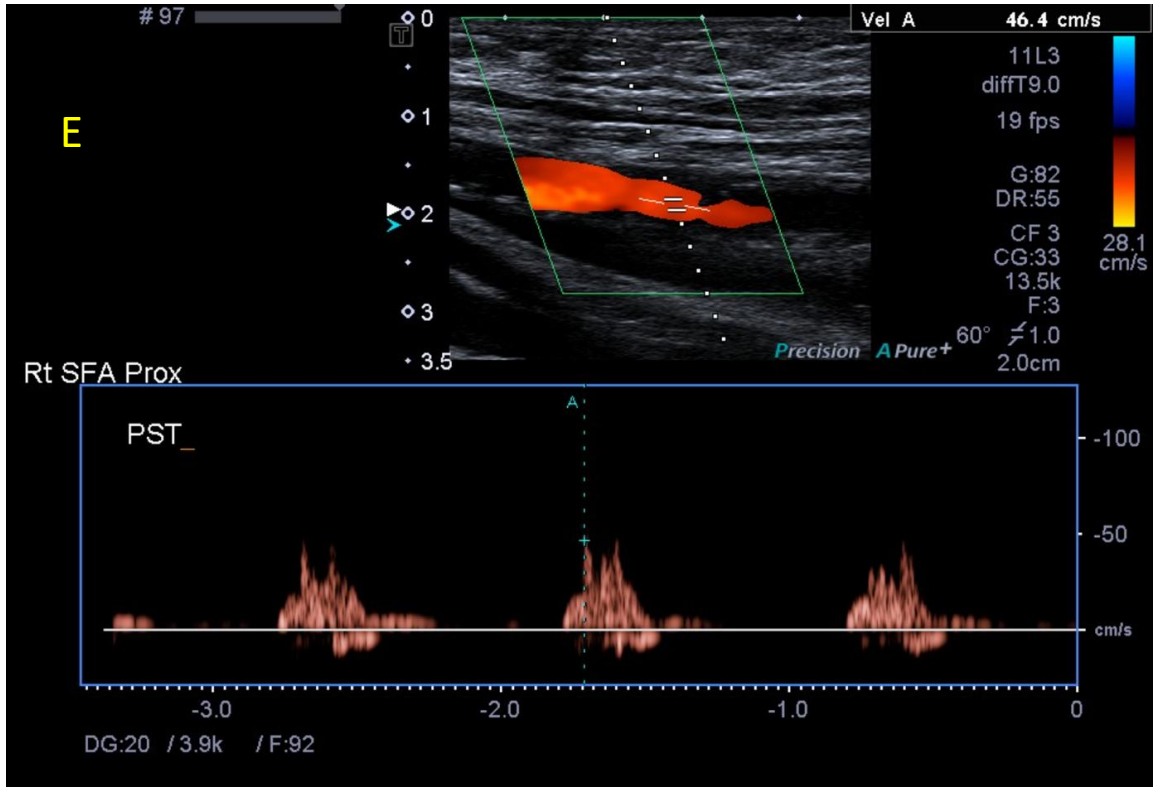

B
# 53
Vel A
144.7 cm/s
11L3
diffT9.0
18 fps
G:82
DR:55
CF 3
CG:30
12.0k
F:3
37.5
cm/s
60°
1.0
1.6cm
Precision A Pure+
Rt CFA Dist
150
100
50
cm/s
-3.0
-2.0
-1.0
0
DG:( 9 ) / 5.0k / F:118

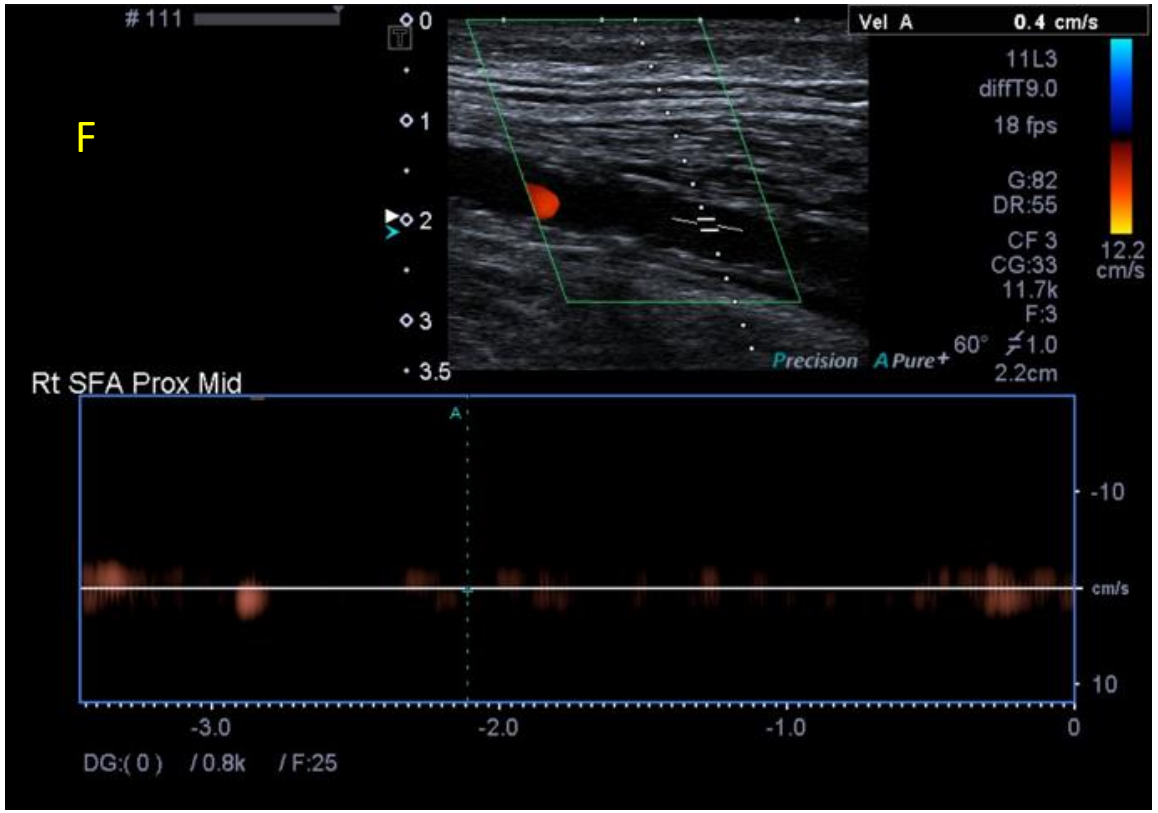
# Images C & D


C
#51
Vel A
531.4 cm/s
11L3
diffT9.0
19 fps
G:82
DR:55
CF 3
CG:33
13.5k
F:3
28.1
cm/s
60°
1.0
2.0cm
Precision
A Pure+
Rt SFA Prox
-4
-2
m/s
-3.0
-2.0
-1.0
0
DG:20 / 15.6k / F:366

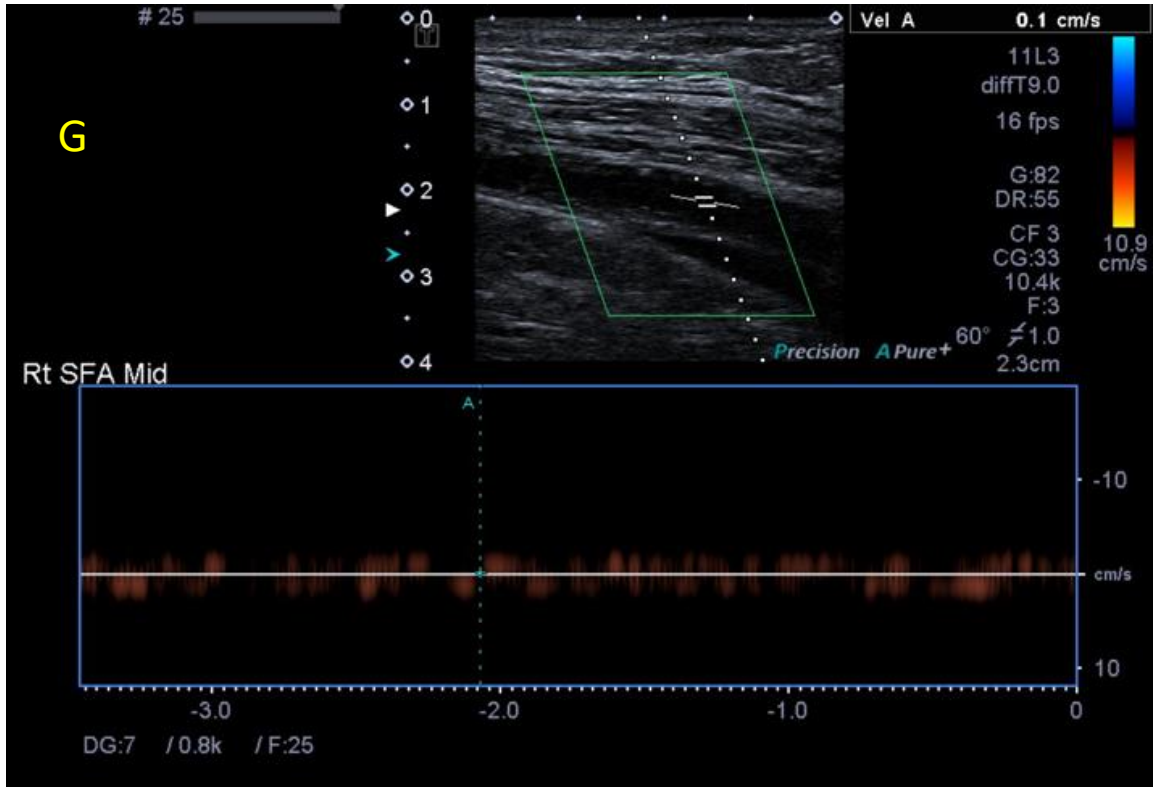

D
#110
Vel A
87.1 cm/s
11L3
diffT9.0
19 fps
G:82
DR:55
CF 3
CG:33
13.5k
F:3
28.1
cm/s
60°
1.0
1.7cm
Precision
A Pure+
Rt SFA Prox
PRE_
-100
-50
cm/s
-3.0
-2.0
-1.0
0
DG:( 3 ) / 3.9k / F:92

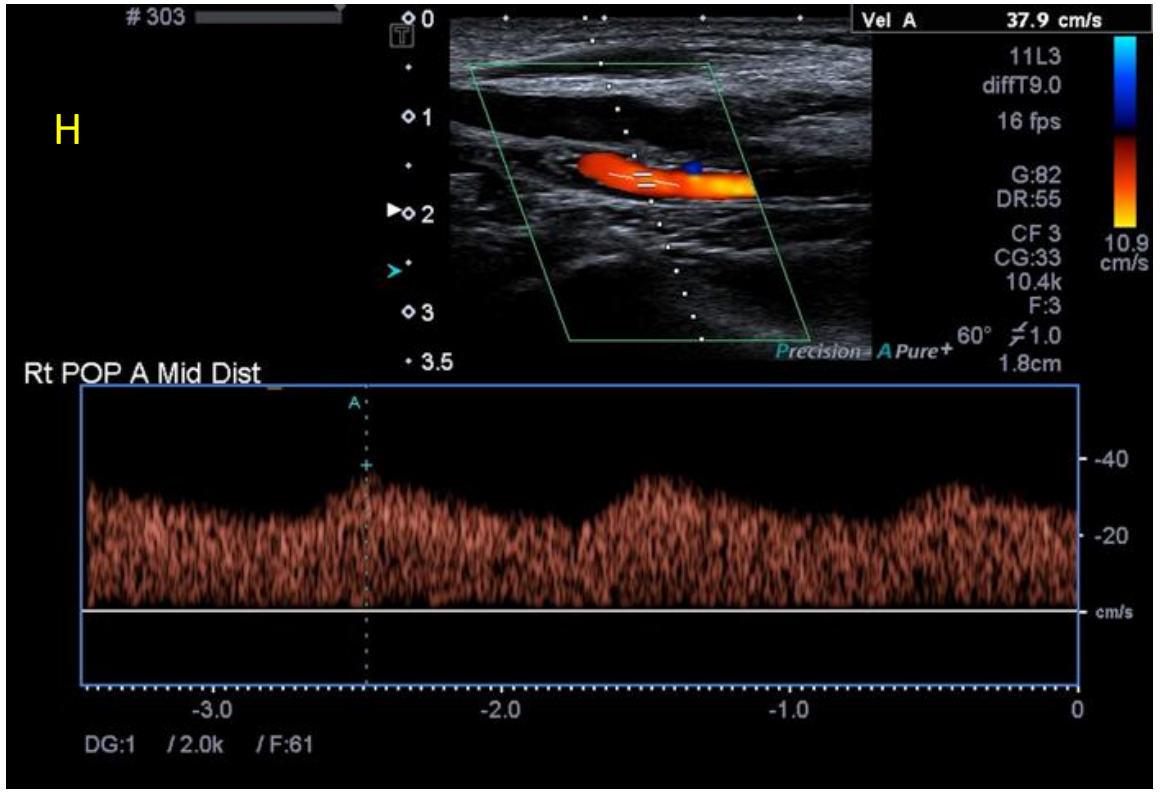
# Images E & F


E
# 97
Vel A
46.4 cm/s
11L3
diffT9.0
19 fps
G:82
DR:55
CF 3
CG:33
13.5k
F:3
28.1
cm/s
60°
1.0
2.0cm
Precision
A Pure+
Rt SFA Prox
PST
-100
-50
cm/s
-3.0
-2.0
-1.0
0
DG:20
/ 3.9k
/ F:92

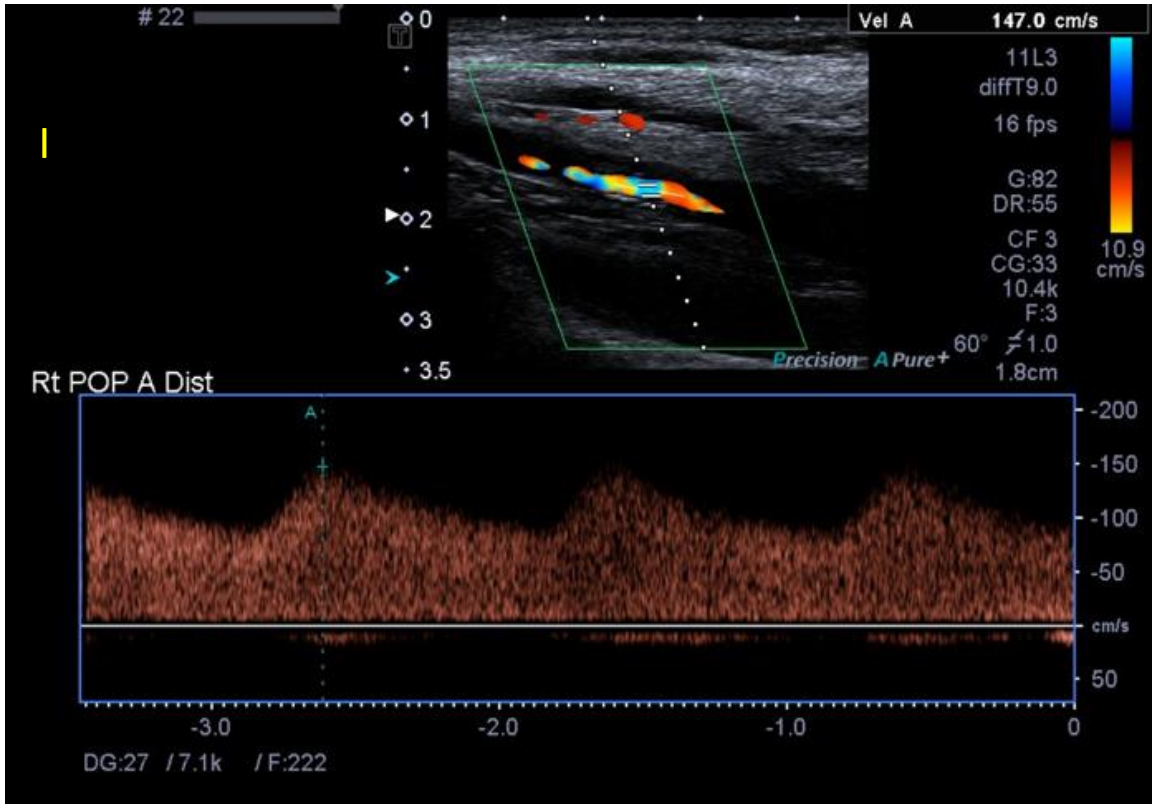

F
# 111
Vel A
0.4 cm/s
11L3
diffT9.0
18 fps
G:82
DR:55
CF 3
CG:33
11.7k
F:3
12.2
cm/s
60°
1.0
2.2cm
Precision
A Pure+
Rt SFA Prox Mid
-10
cm/s
10
-3.0
-2.0
-1.0
0
DG:( 0 )
/ 0.8k
/ F:25

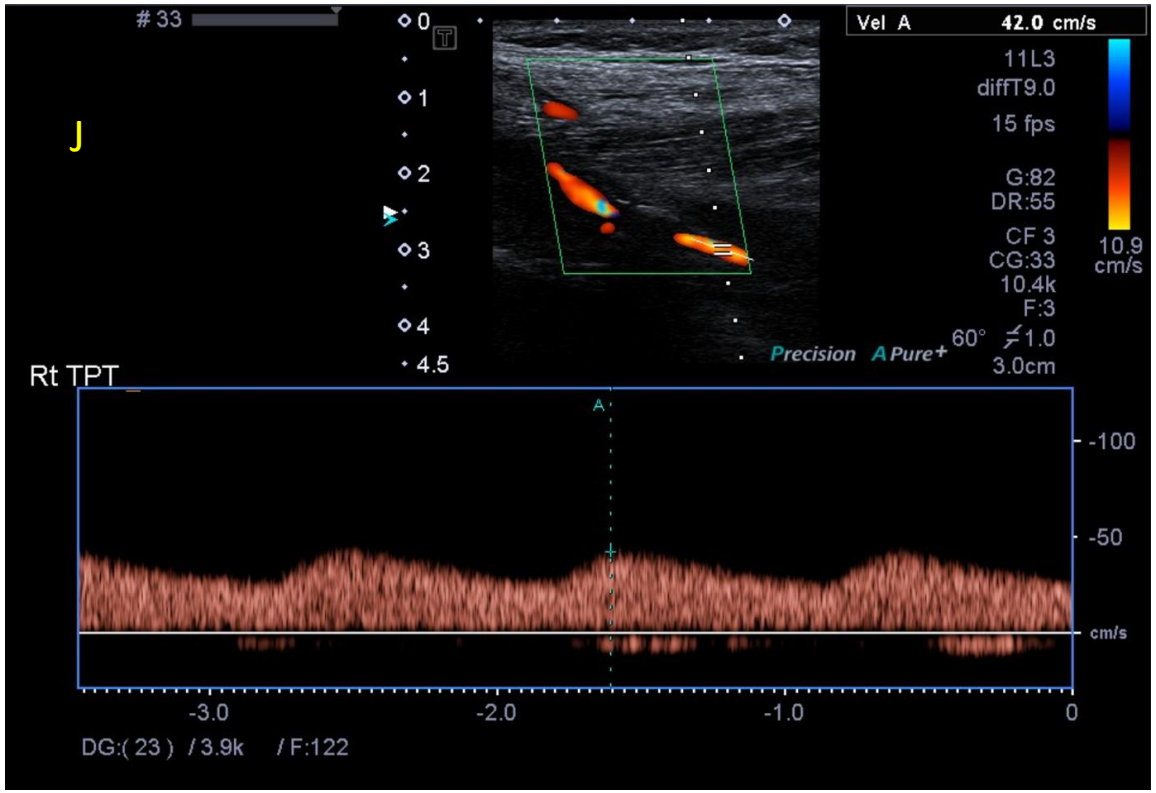
# Images G & H


G
# 25
Vel A
0.1 cm/s
11L3
diffT9.0
16 fps
G:82
DR:55
CF 3
CG:33
10.4k
F:3
60°
1.0
2.3cm
10.9
cm/s
Precision
A Pure+
Rt SFA Mid
-10
cm/s
10
-3.0
-2.0
-1.0
0
DG:7
/ 0.8k
/ F:25


H
# 303
Vel A
37.9 cm/s
11L3
diffT9.0
16 fps
G:82
DR:55
CF 3
CG:33
10.4k
F:3
60°
1.0
1.8cm
10,9
cm/s
Precision
A Pure+
Rt POP A Mid Dist
-40
-20
cm/s
-3.0
-2.0
-1.0
0
DG:1
/ 2.0k
/ F:61

# Images I & J


I
# 22
Vel A
147.0 cm/s
11L3
diffT9.0
16 fps
G:82
DR:55
CF 3
CG:33
10.4k
F:3
60°
1.0
1.8cm
10.9
cm/s
Precision
A Pure+
Rt POP A Dist
-200
-150
-100
-50
cm/s
50
-3.0
-2.0
-1.0
0
DG:27 / 7.1k / F:222


J
# 33
Vel A
42.0 cm/s
11L3
diffT9.0
15 fps
G:82
DR:55
CF 3
CG:33
10.4k
F:3
60°
1.0
3.0cm
10.9
cm/s
Precision
A Pure+
Rt TPT
-100
-50
cm/s
-3.0
-2.0
-1.0
0
DG:( 23 ) / 3.9k / F:122

# Questions:

1. Considering your patients history, provide an overview of the most likely pathological process that has occurred prior to intervention. What issues would your client have had physically? [5]
2. Is the information about resting pain relevant? If yes why, if no why? [2]
3. Provide an overview of the information detailed from the patient's arterial pressure study. [2]
4. Consider the waveforms in the following images and describe using consensus document information: Indicate in your answer if they are normal or abnormal flows. [8]
    a) Image A
    b) Image E
    c) Image H
    d) Image J
5. With the images provided, **complete the arterial worksheet-** and provide an overview of the sonographic findings. [4]
6. Would your patient benefit from an exercise study? If so how, if not why not [1]