



雙和急診POCUS訓練

陳國智 醫師



醫用超音波學會指導醫師
WINFOCUS director / instructor
急救加護醫學會重症超音波負責人

急診 / 重症 / 介入 / 急性疼痛

經歷

新光急診超音波訓練中心主任

西園醫院急診醫學科主任

急診醫學會超音波委員會主委

台灣疼痛醫學會大體模擬手術講師

診
斷

監
測

介
入

POINT OF CARE ULTRASOUND

~ 存在於臨床需求之所在 ~



LE joint effusion

01/07

Airway

01/14

Needling

01/21

VExUS protocol

01/28

雙和急診POCUS訓練



Central access

02/11

Peripheral access

02/18

EFAST

02/25

雙和急診POCUS訓練



Basic ECHO

03/04

Nerve block-UE(1)

03/11

Nerve block-LE(1)

03/25

雙和急診POCUS訓練



Aorta & IVC

04/01

Liver & Biliary

04/08

Kidney & UB

07/08

Pancreas & Spleen

07/22

雙和急診POCUS訓練



GI tract scan

08/05

Essential skills for PGY

08/05

Vascular access

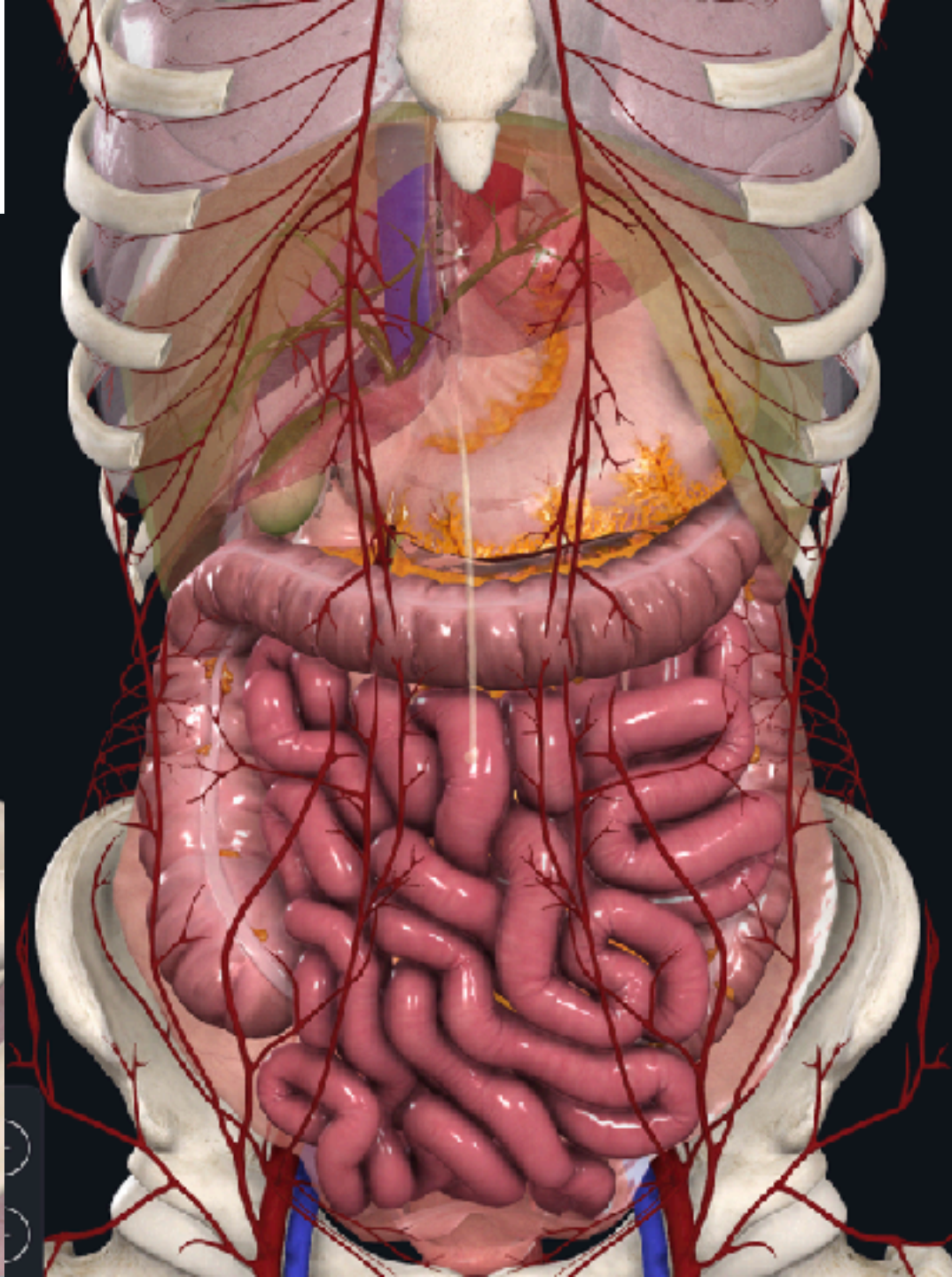
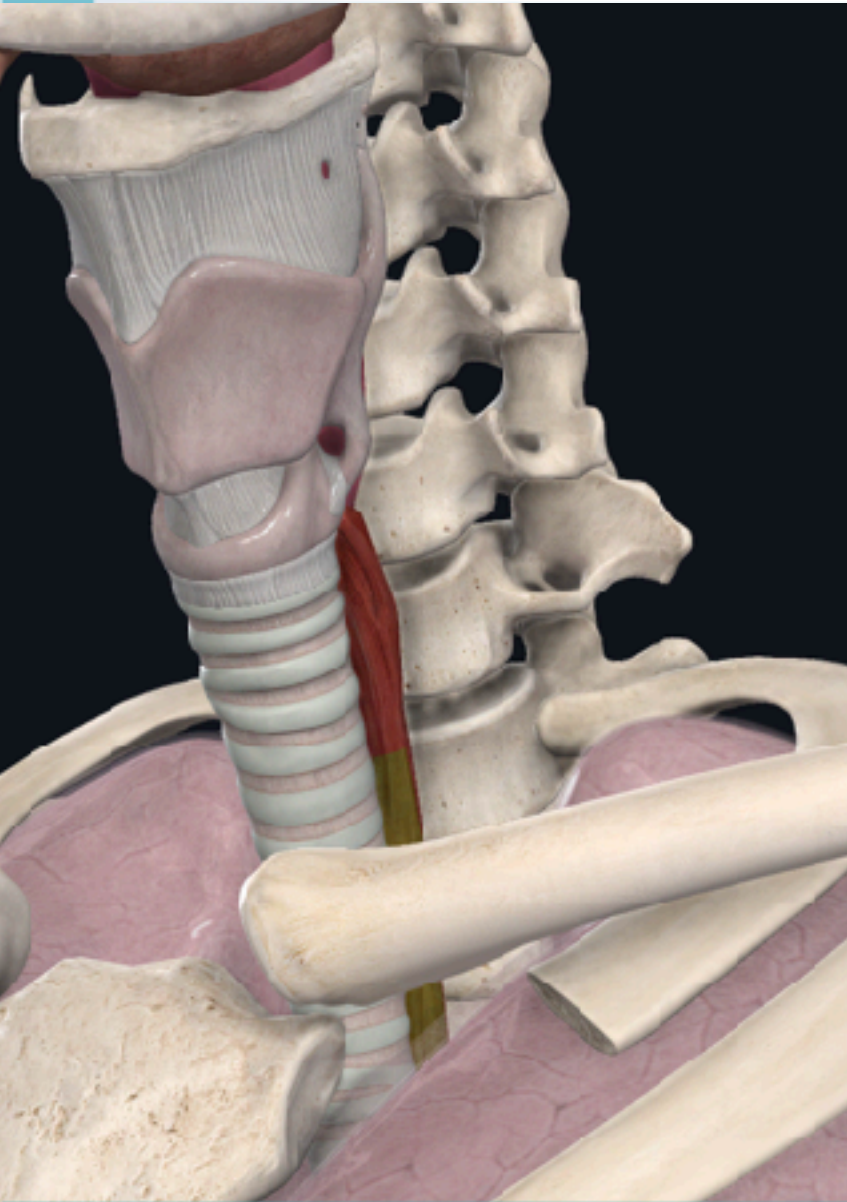
08/05

Master Needling

08/05

雙和急診POCUS訓練

GI tracts



CERVICAL ESOPHAGUS

Superficial
L12-3
46 Hz
3.5cm

2D
Gen
Gn 91
C. 35
3/2/1

Mucosa

Muscularis mucosa

Submucosa

Muscularis propria

Adventitia



P R
3.0 12.0

3.5cm

EC JUNCTION

Abd Gen
C5-1
39 Hz
12.0cm

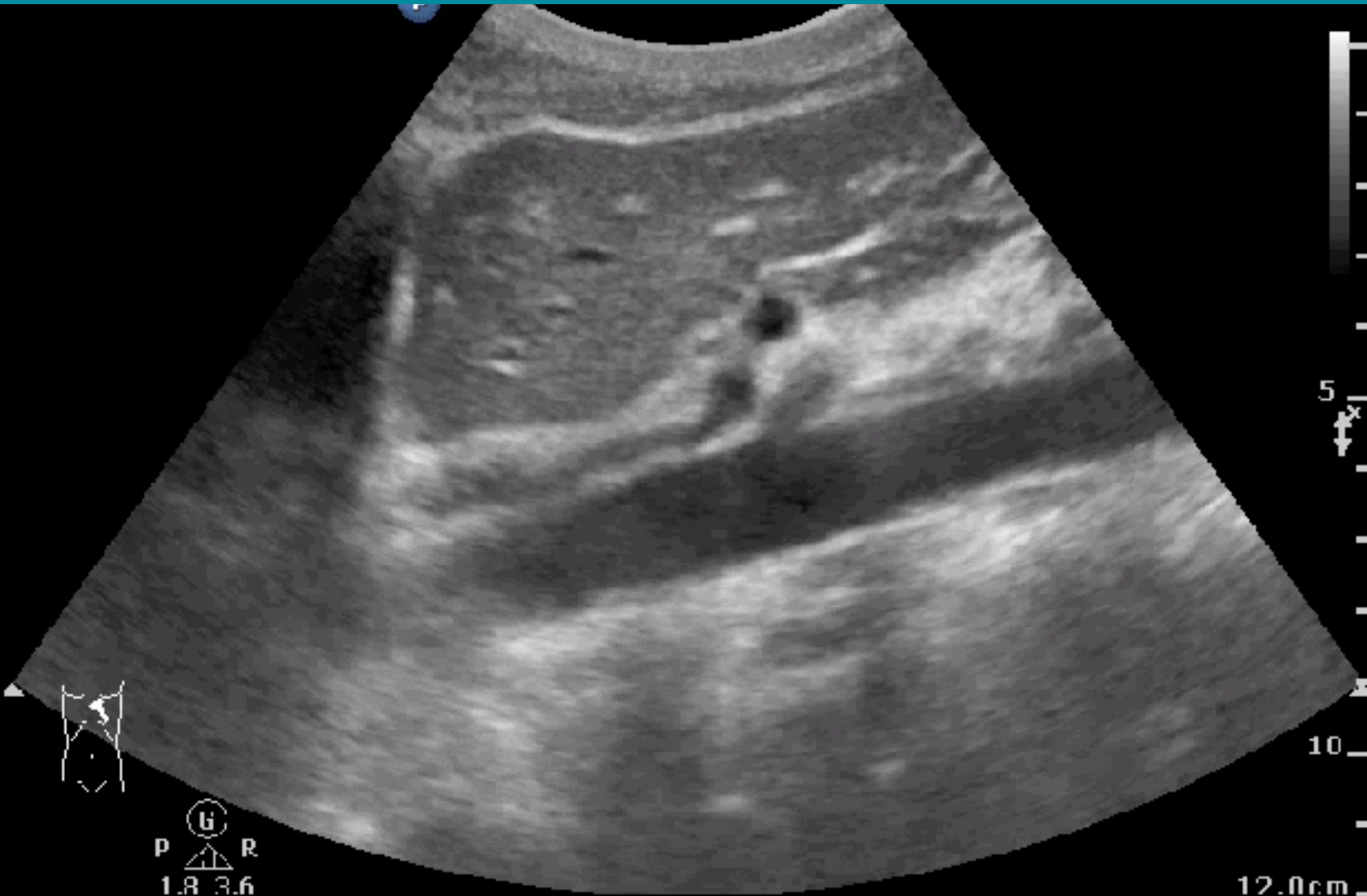
2D
HGen
Gn 100
C. 56
3/3/3



PNEUMOPERITONEUM LANDMARK

Abd Gen
C5-1
39 H7
12.0cm

2D
HGen
Gn 100
C 56
3 / 3 / 3



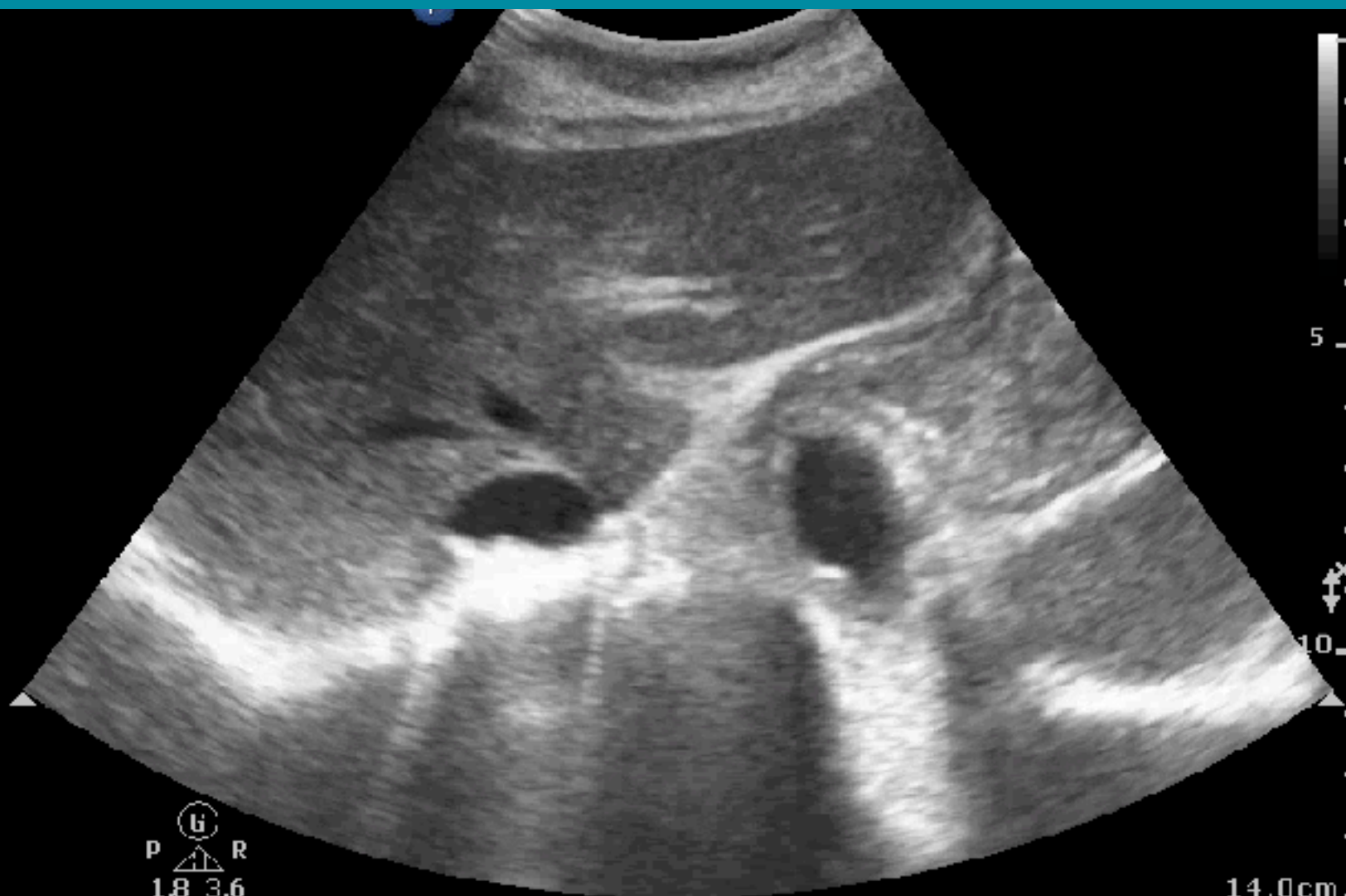
P R
1.8 3.6

12.0cm

EC JUNCTION

Abd Gen
C5-1
36 Hz
14.0cm

2D
HGen
Gn 56
C 56
3/3/3



u
P R
1.8 3.6

14.0cm

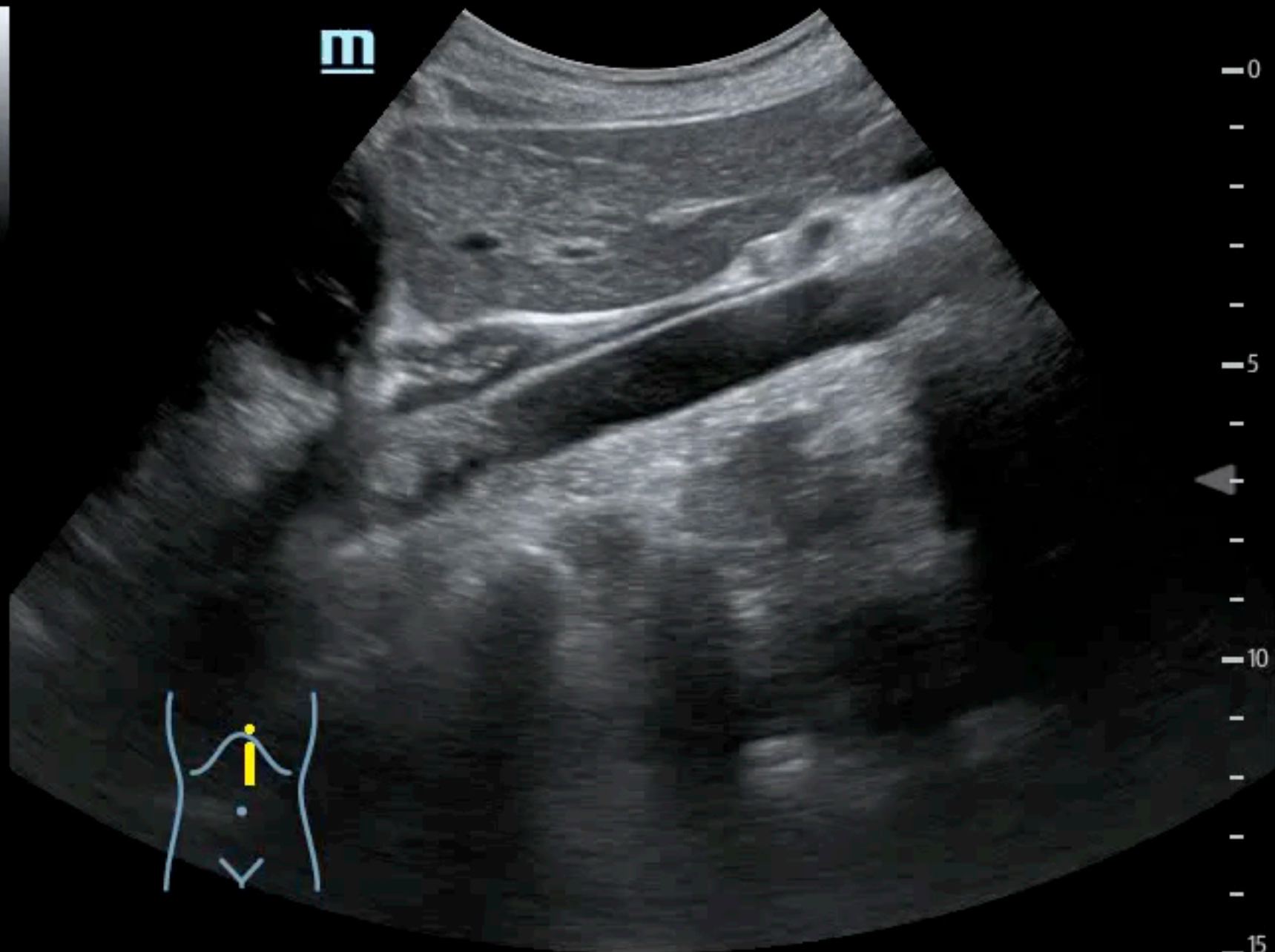
RUGAE



C5-2s
MI 0.9
TIS 0.7

AP 96.6%

B
FH 5.0
DR 120
FR 22
D 15.0
G 50



STOMACH-ANTRUM-DUODENUM



STOMACH

Abd Gen
C5-1
36 Hz
14.0cm

2D

HGen
Gn 100
C. 56
3 / 3 / 3



11.0cm

ANTRUM

C5-1
55 Hz
7.0cm

2D
HGen
Gn 60
C. 56
3/3/3



Ⓜ
P R
1.8 3.6

7.0cm

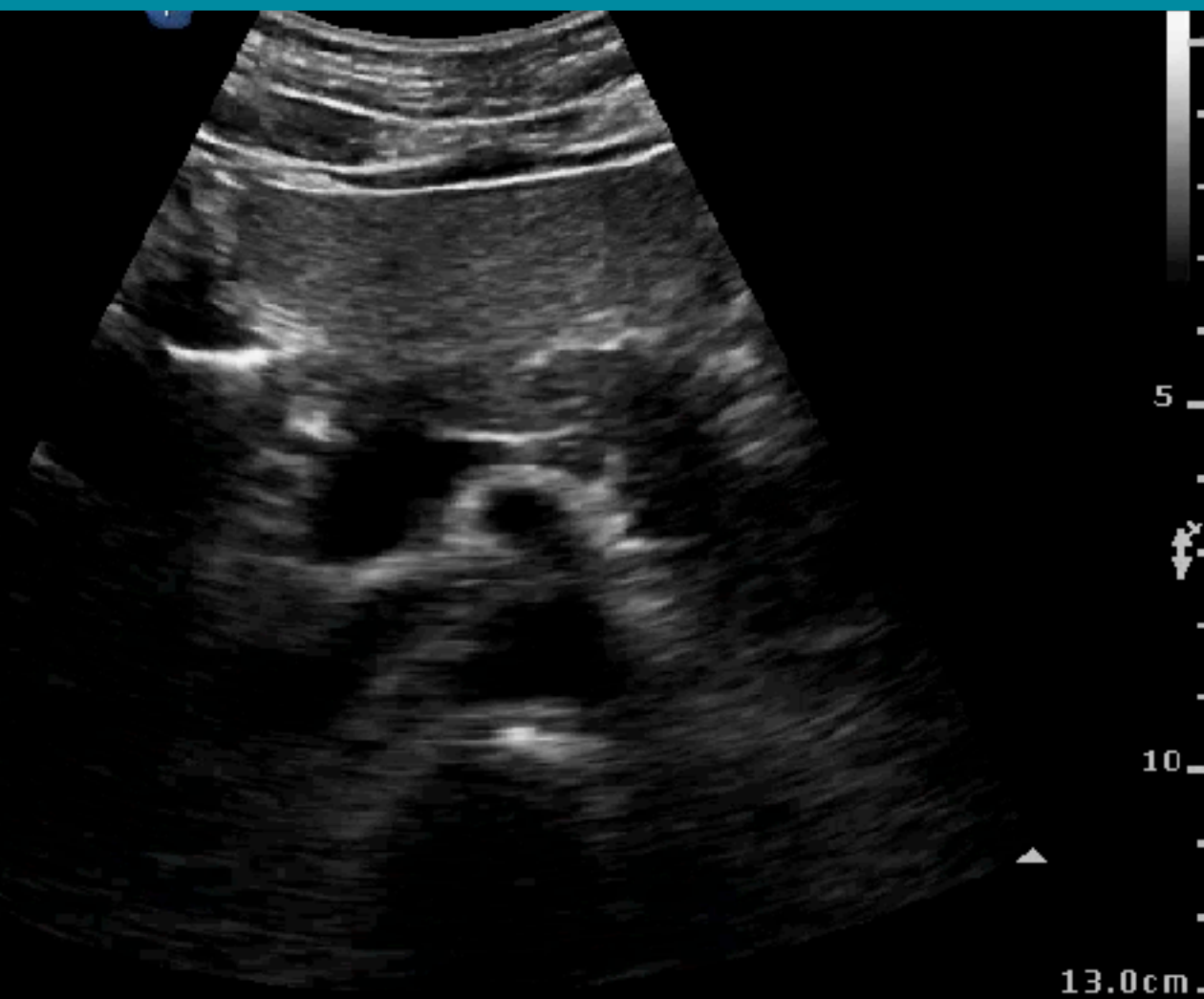
ANTRUM

C6-2
22 Hz
13.0cm

2D
Gen
Gn 52
C. 49
2/3/4

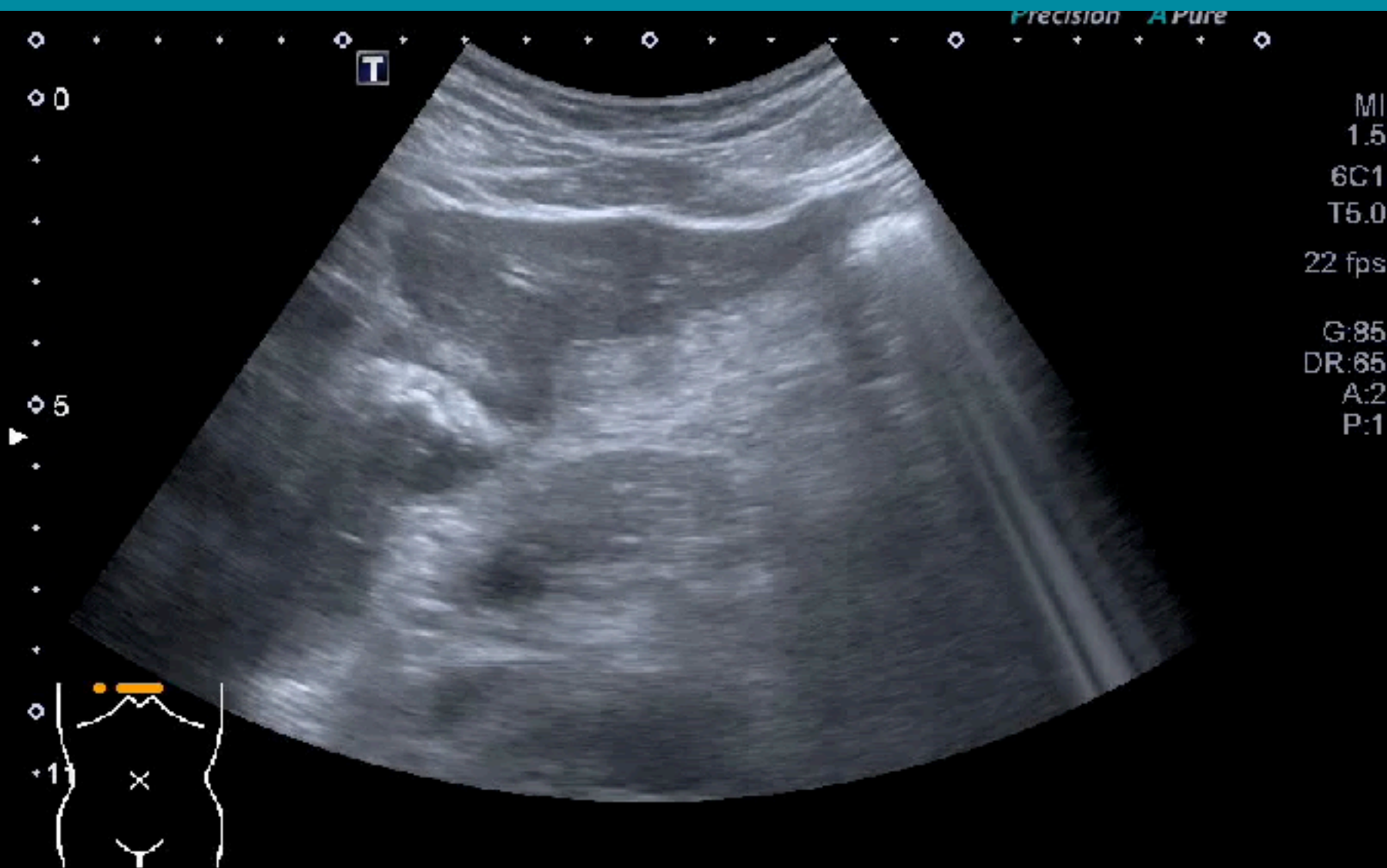


R
P R
2.0 6.0

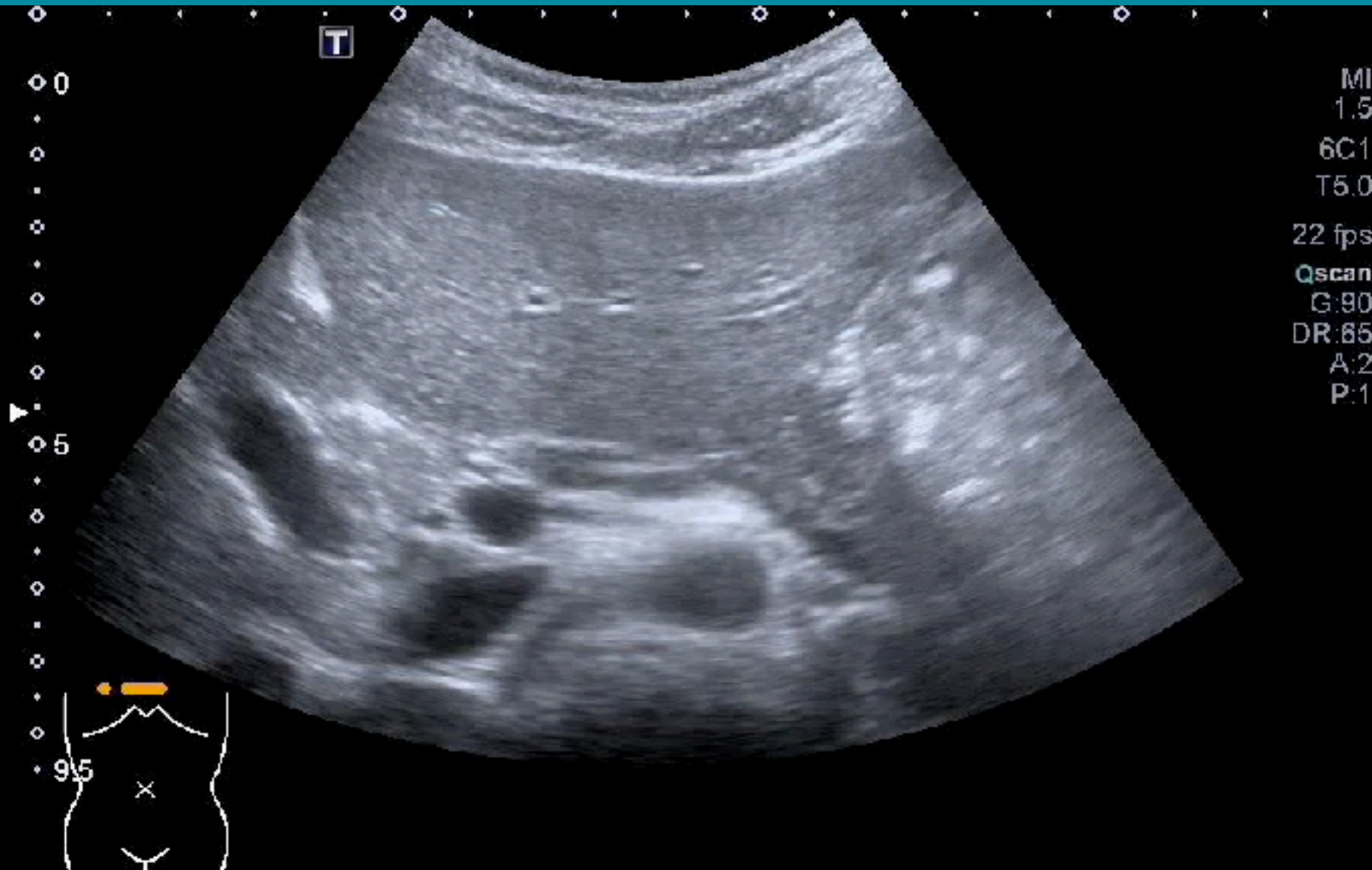


13.0cm

ANTRUM-DUODENUM



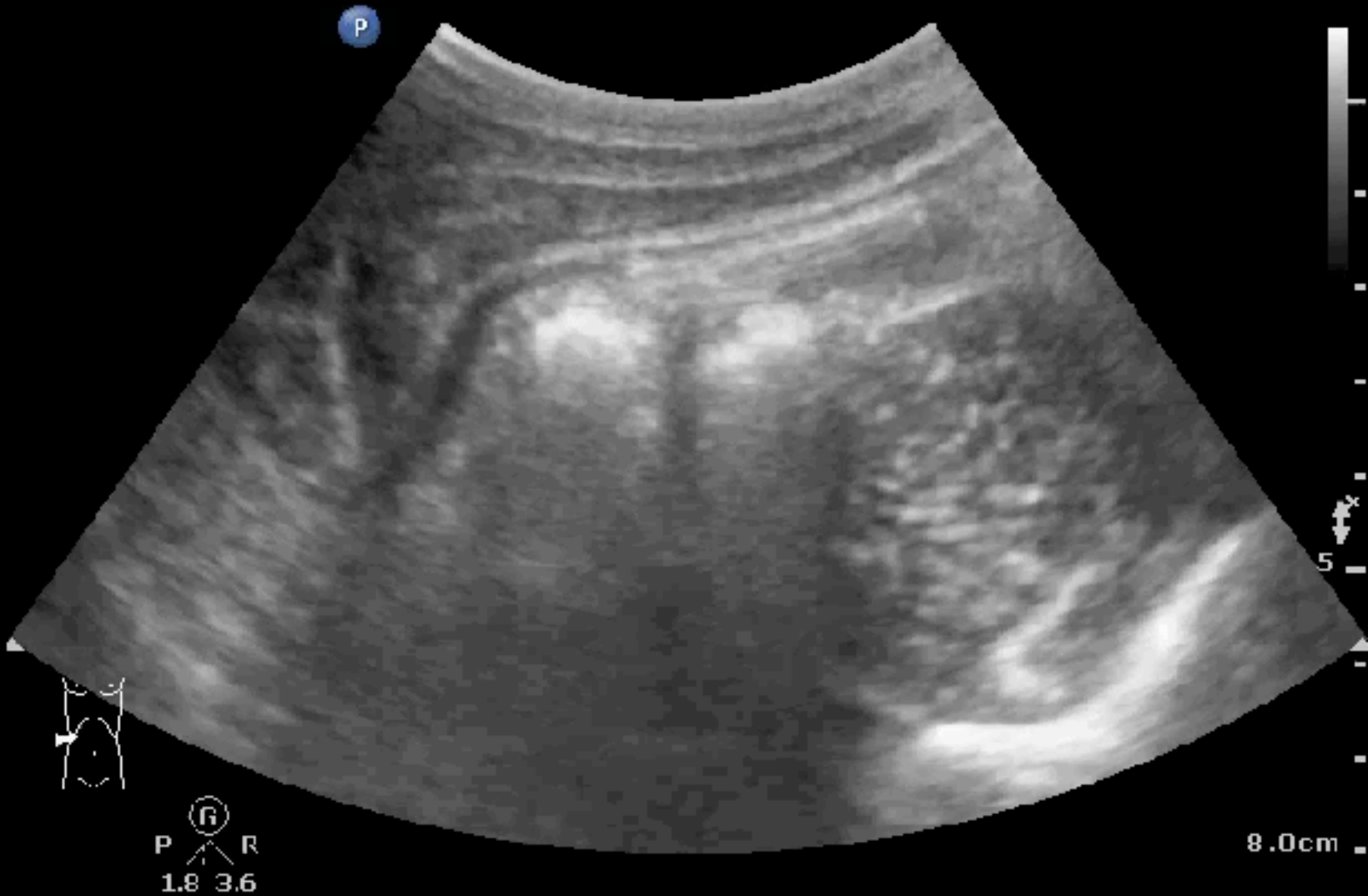
GASTRIC OUTLET OBSTRUCTION EVALUATION



COLON-HAUSTRATION

Abd Gen
C5-1
51 Hz
8.0cm

2D
HGen
Gn 100
C. 56
3/3/3



COLON-HAUSTRATION

Abd Gen
C5-1
55 Hz
7.0cm

2D
HGen
Gn 86
C. 56
3/3/3



P
R
1.8 3.6

7.0cm

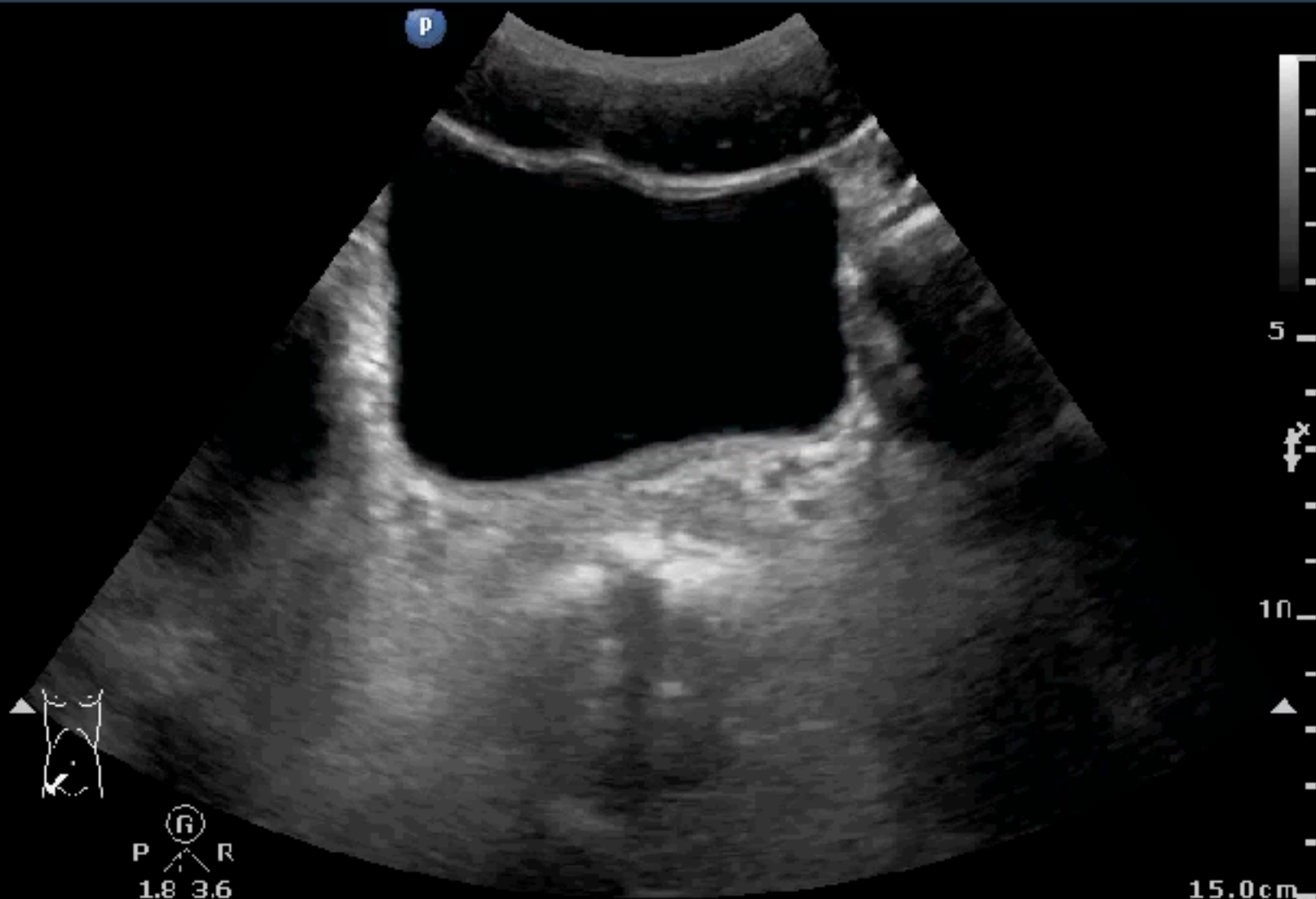
COLON-HAUSTRATION



RECTUM

Abd Gen
C5-1
34 Hz
15.0cm

2D
HGen
Gn 55
C. 56
3 / 3 / 3



P R
1.8 3.6

15.0cm

SMALL BOWEL

MI 0.9
TIS 0.7

B
FH5.0
DR120
FR26
D12.0
G50

m



0
-
-
-
-
5
-
-
-
-
10

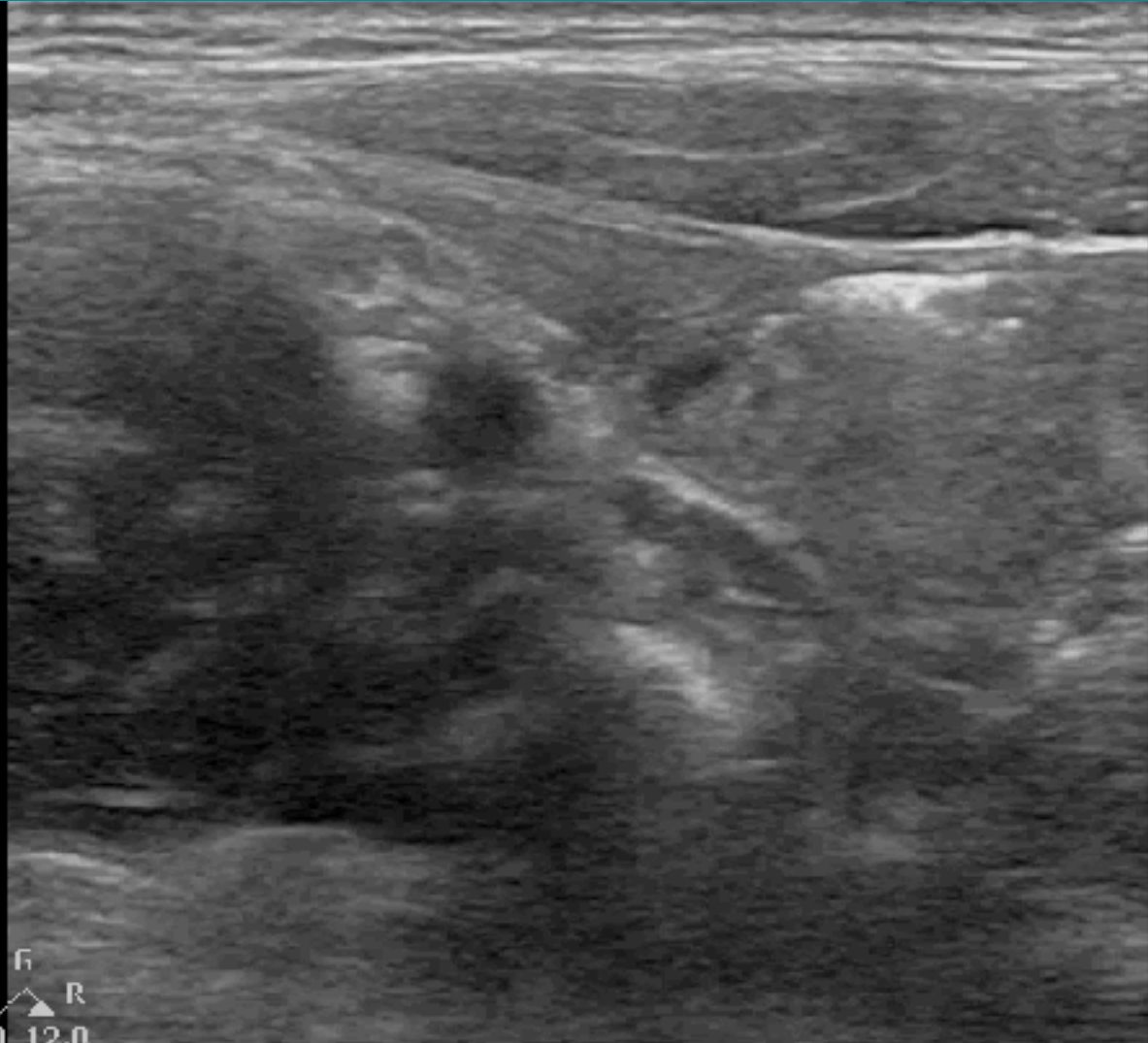
SMALL BOWEL

Superficial
L12-3
46 Hz
3.5cm

2D
Res
Gn 100
C. 56
3 / 2 / 1

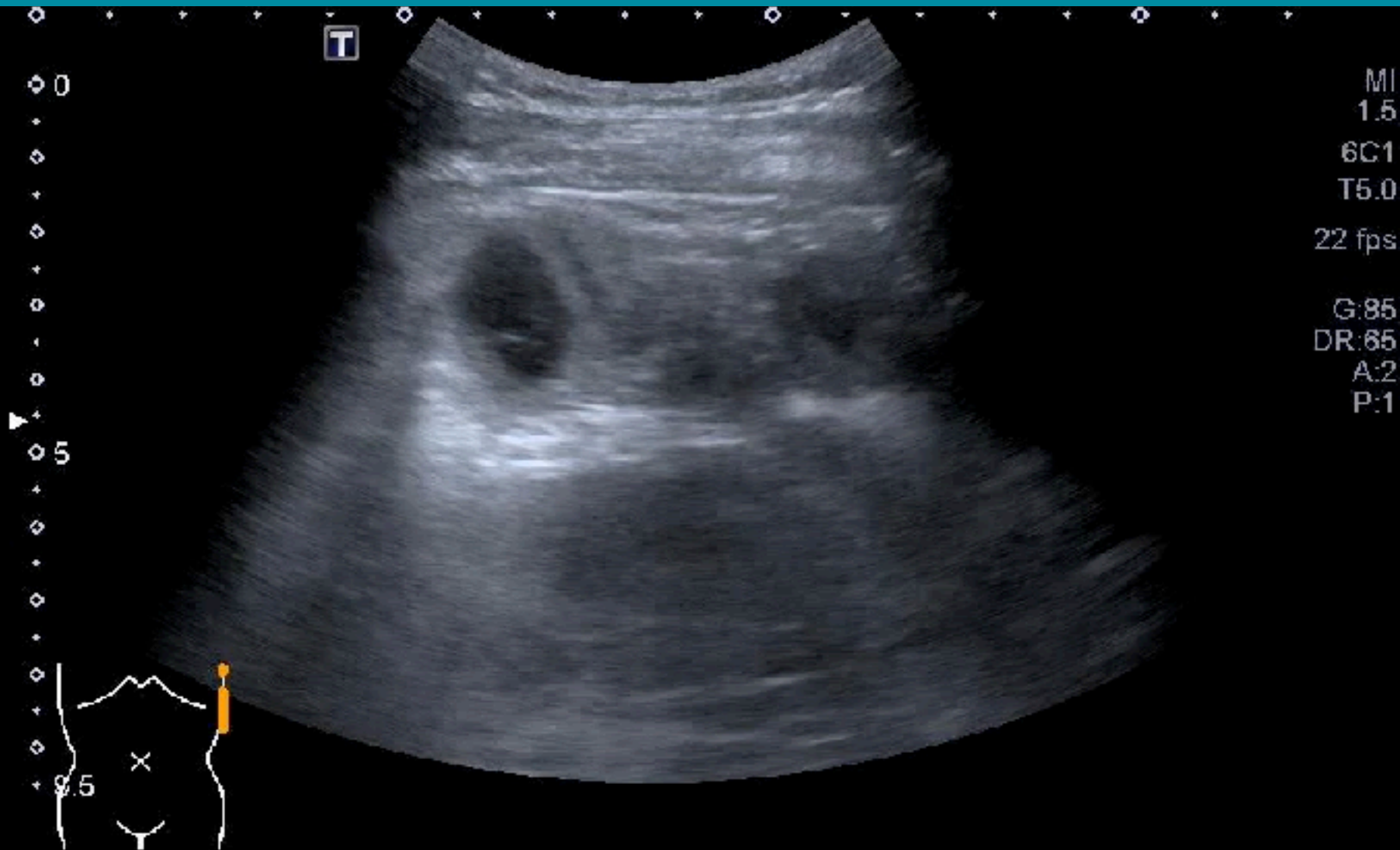


P R
3.0 12.0

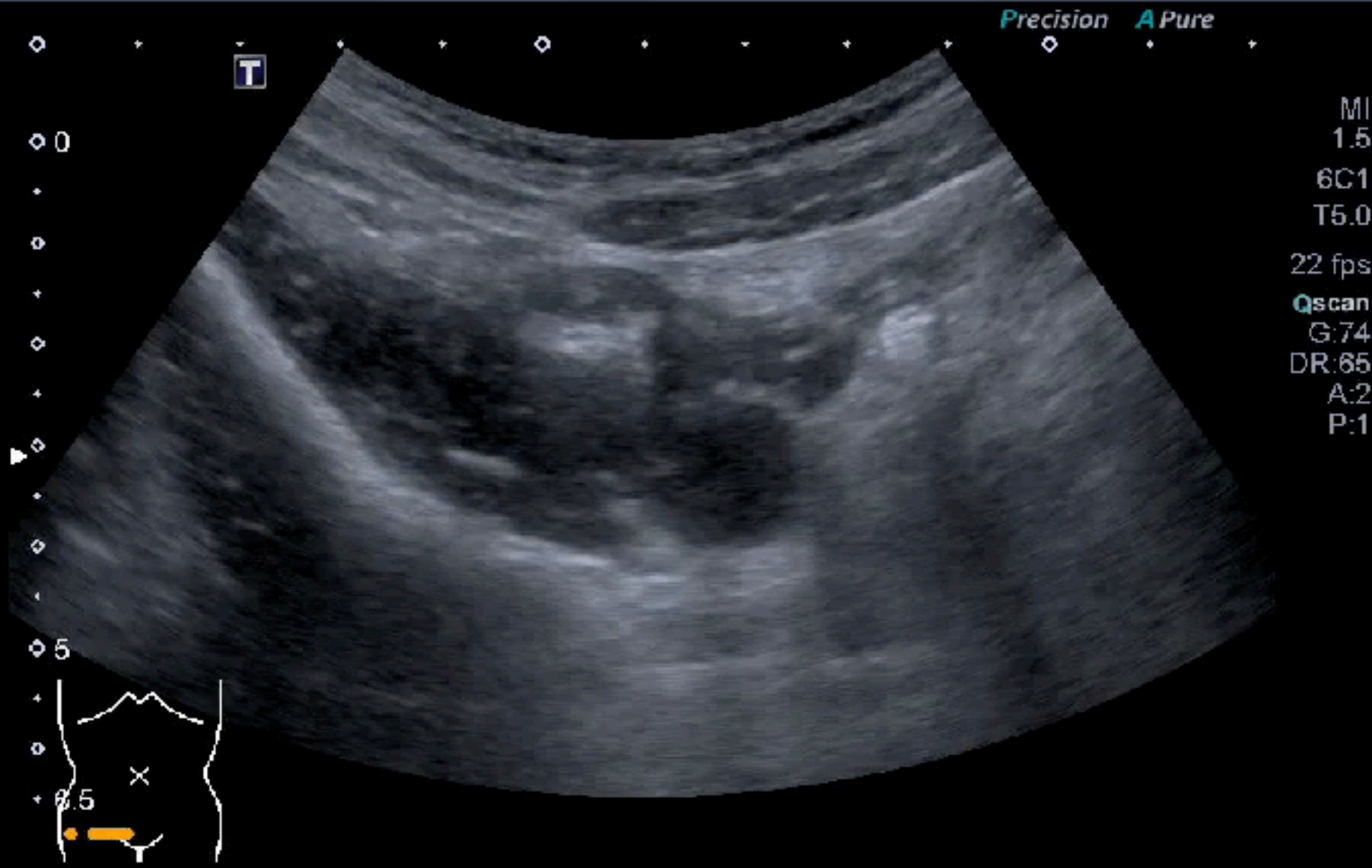


3.5cm

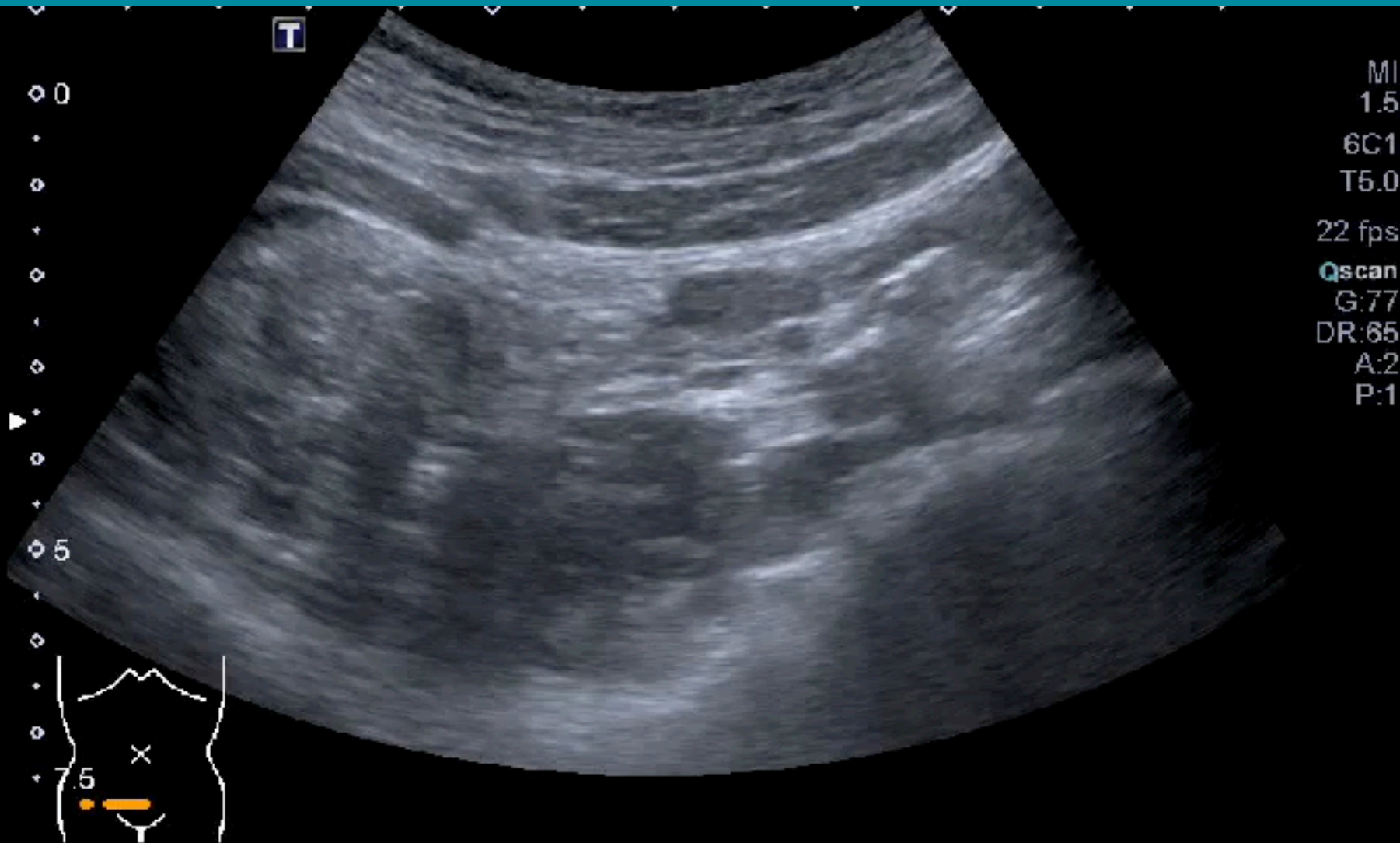
SMALL BOWEL



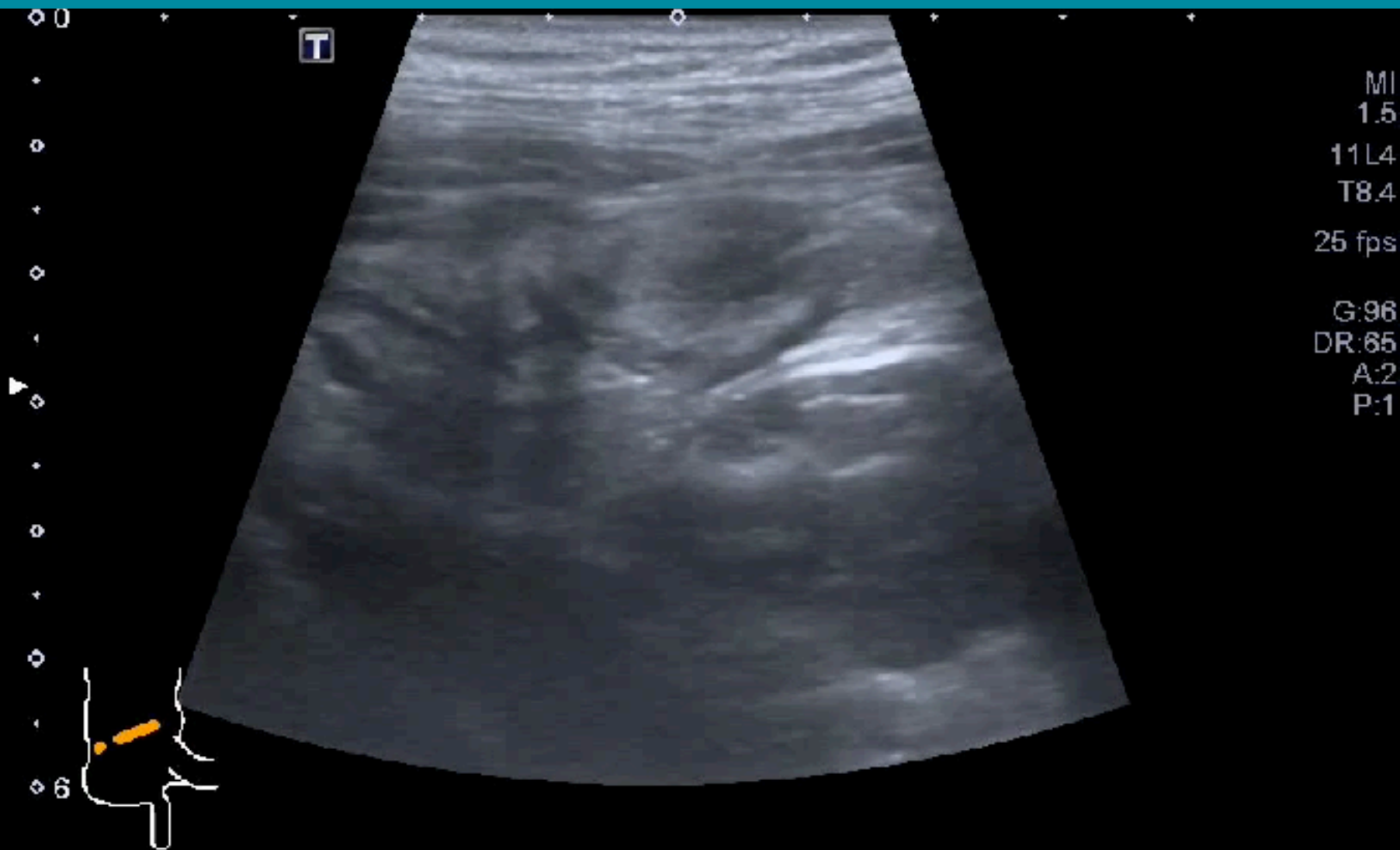
ILEOCECAL VALVE



APPENDIX



APPENDIX



Basic lung: bat sign / sliding / A line

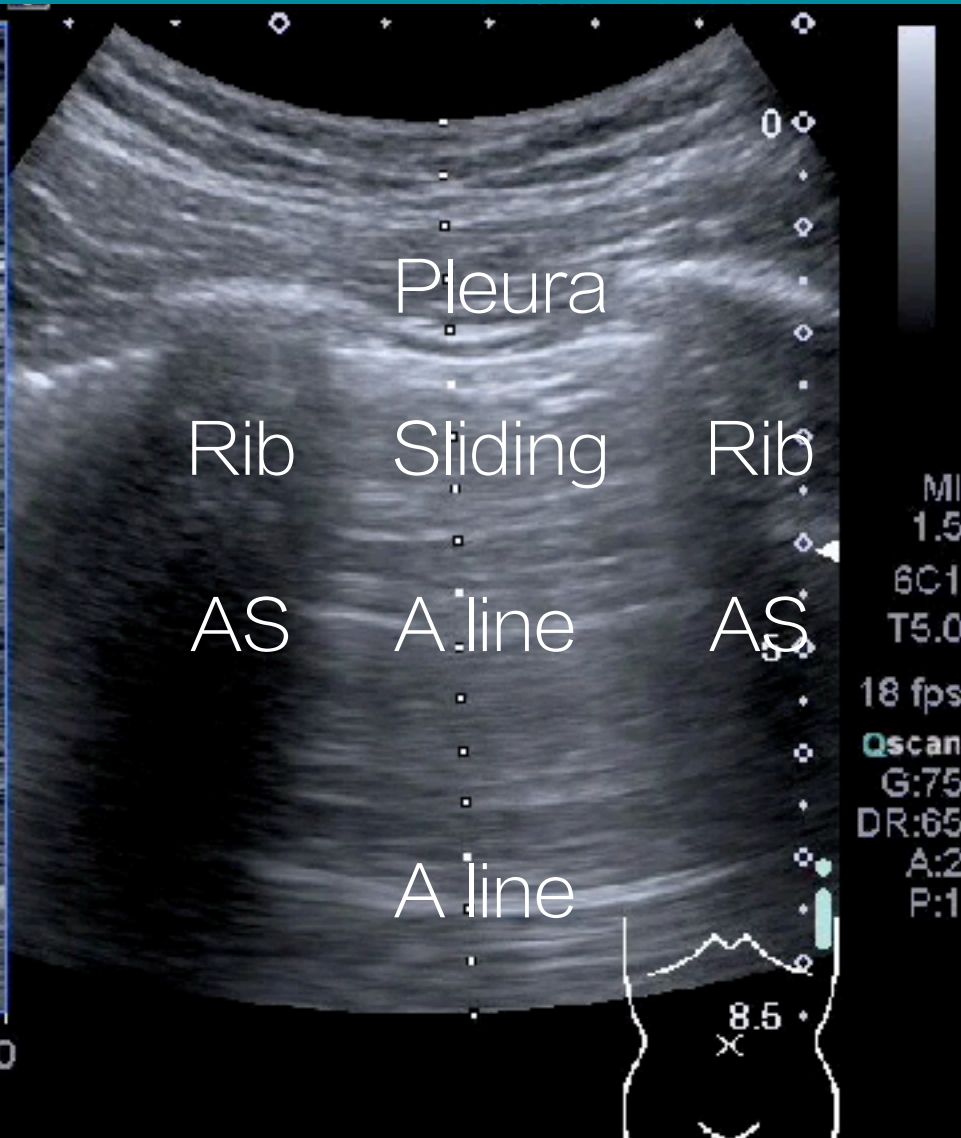
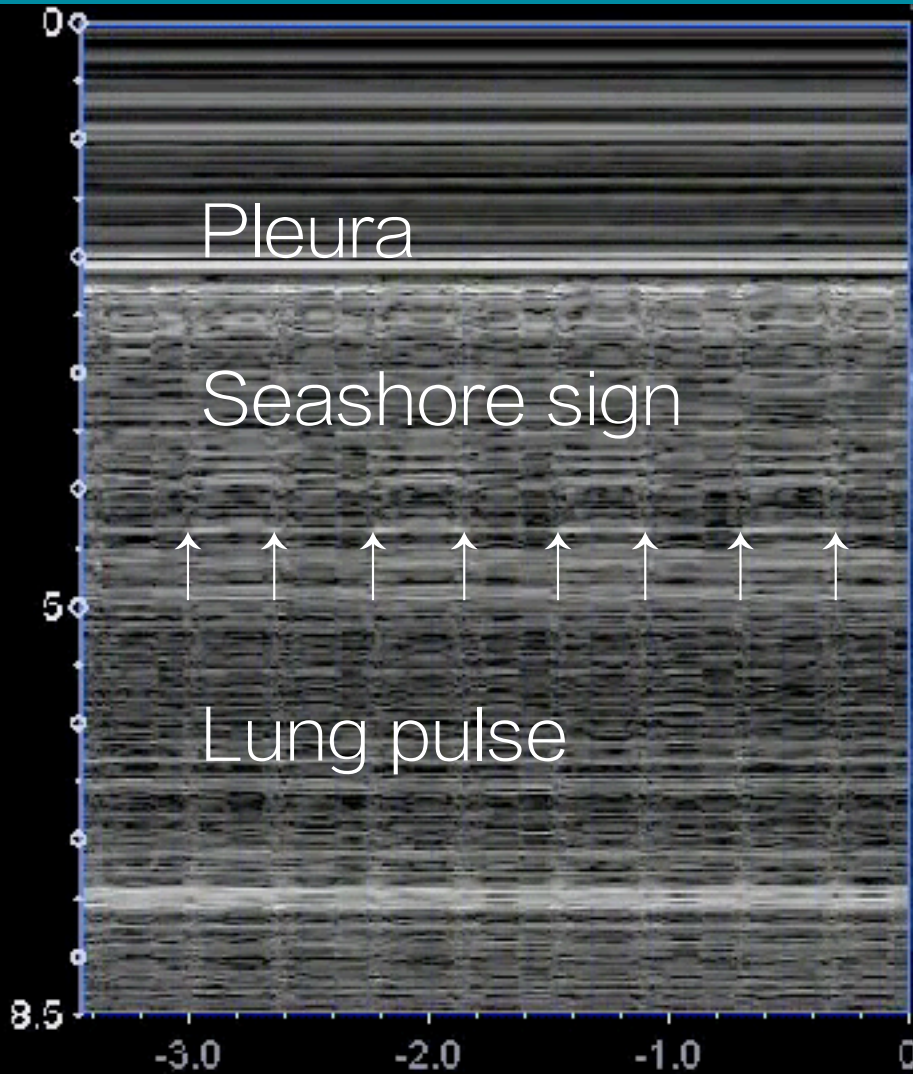
Basic heart: PSLA & SC4

Abdomen: RUQ / LUQ / Central / Pelvis

ESSENTIAL SKILLS

CVC & NEEDLING

BASIC LUNG



BASIC HEART-PSLA

C Nerve
C6-2
22 Hz
13.0cm

2D

Gen
Gn 60
C. 53
2/3/2



R
P R
2.0 6.0

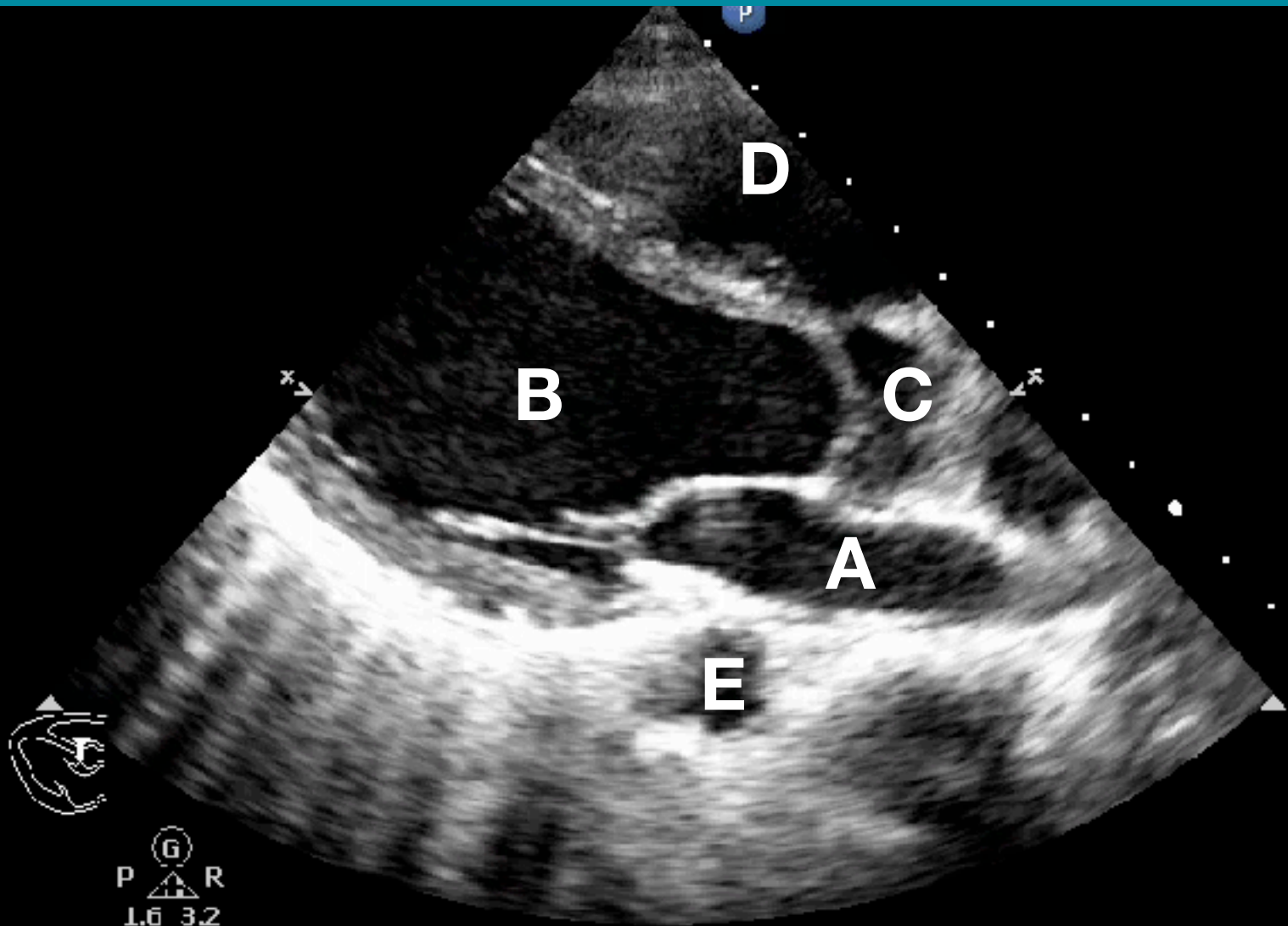


13.0cm

BASIC HEART-PSLA

Adult Echo
S5-1
36 Hz
14.0cm

2D
HGen
Gn 36
C 50
3/2/0



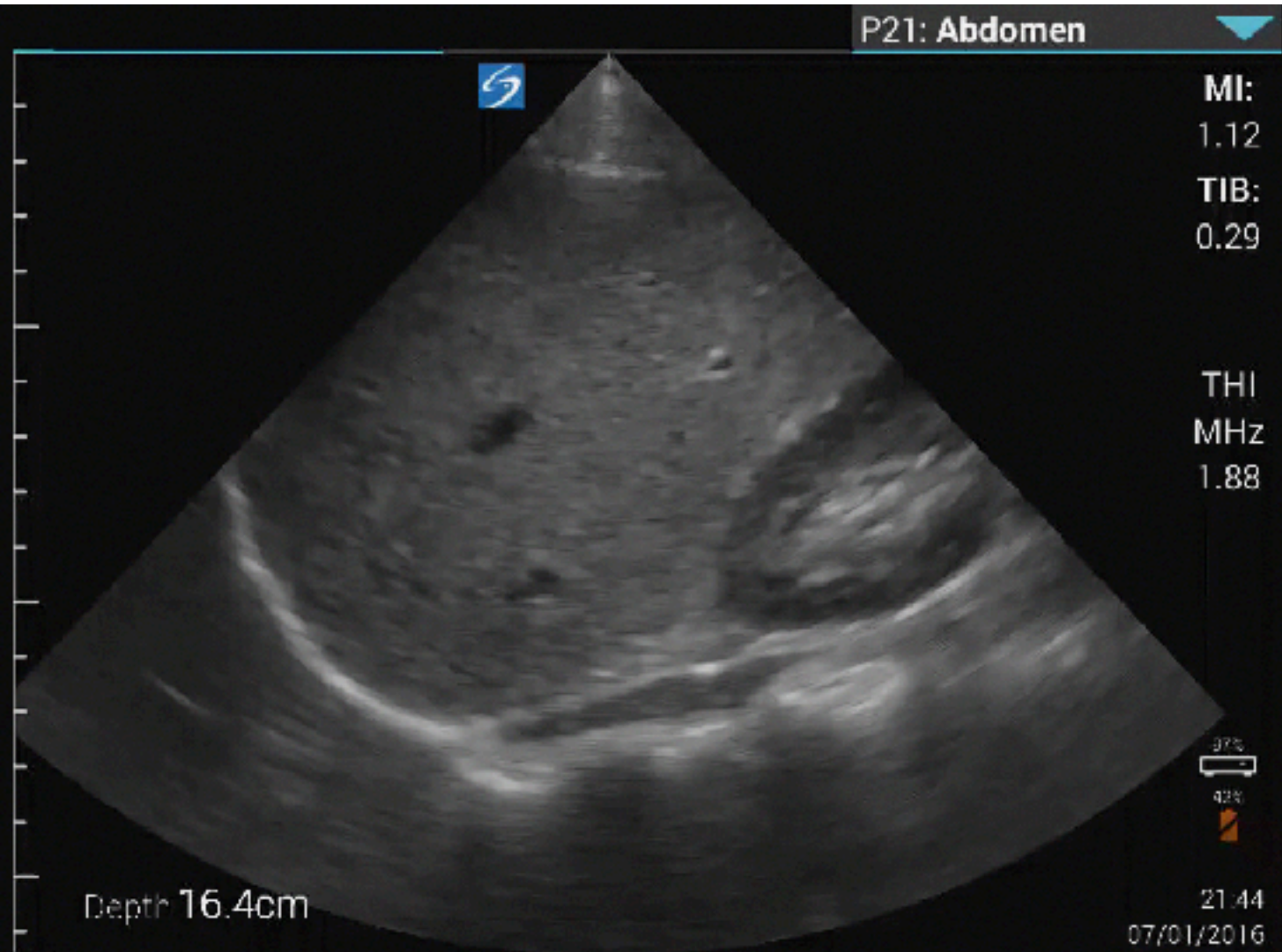
BASIC HEART-S4C

0.5-1
26 Hz
22.0cm

2D
Gen
Gn 76
C 56
1/3/3



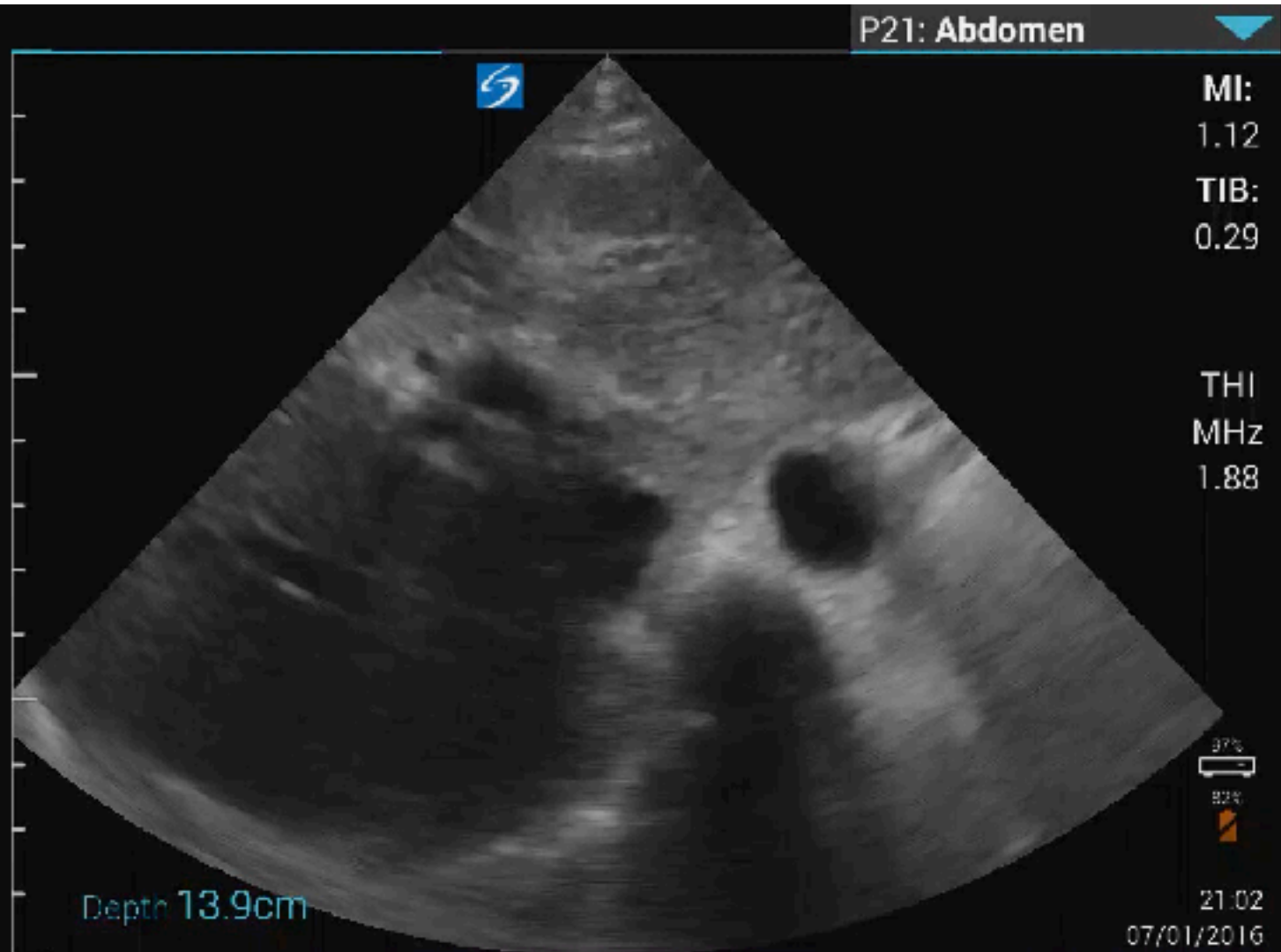
RUQ



LUQ



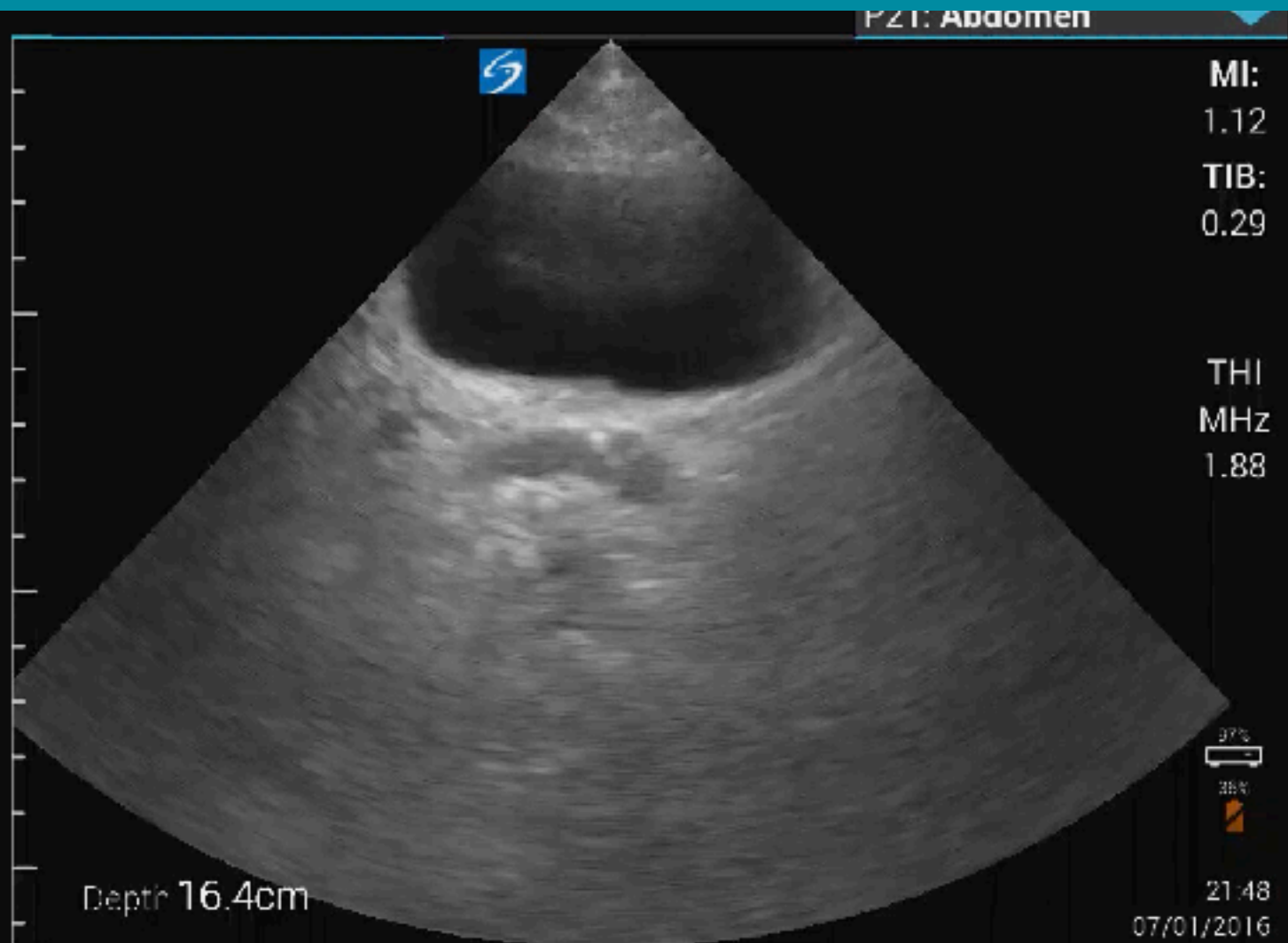
CENTRAL



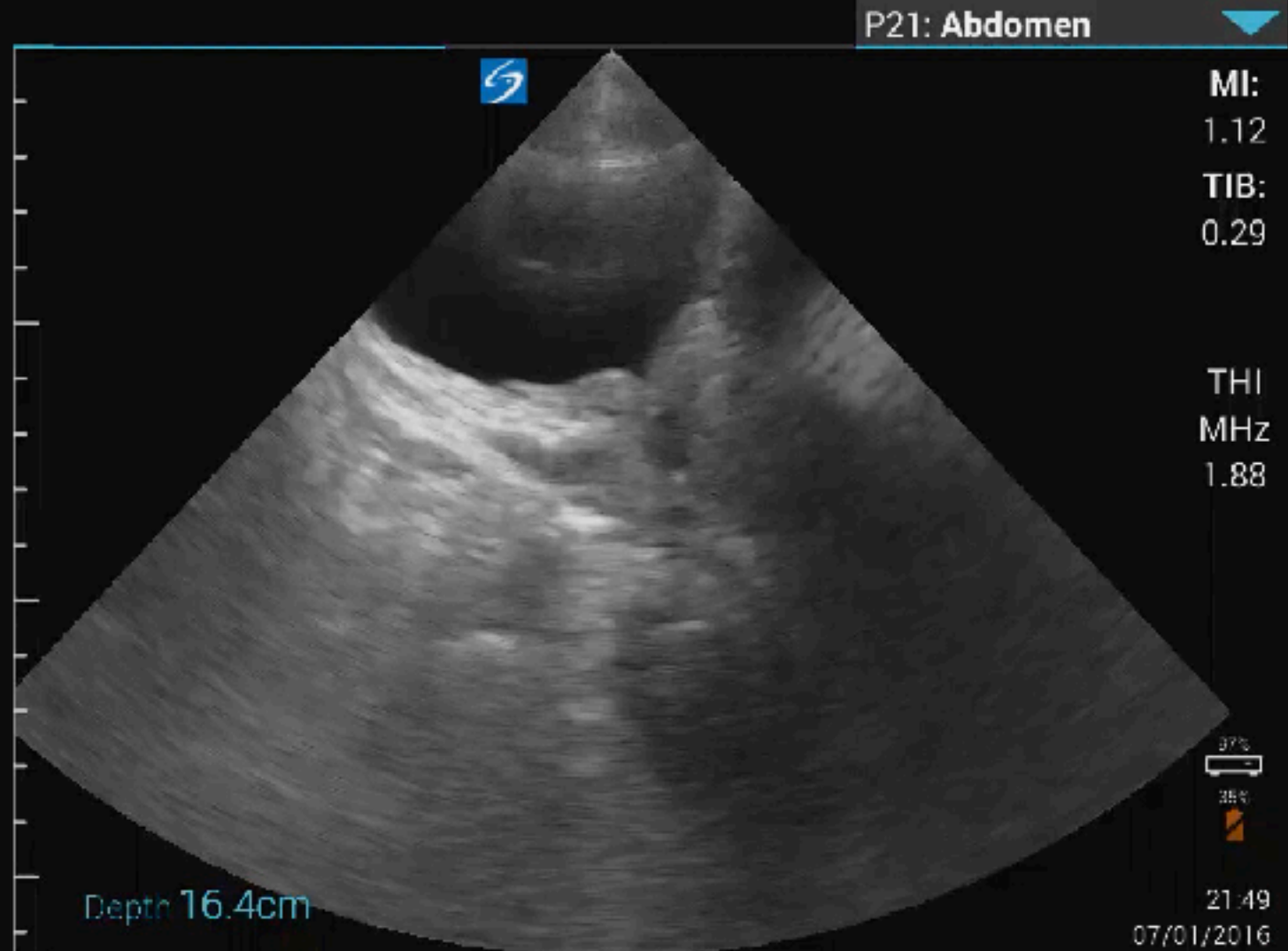
CENTRAL



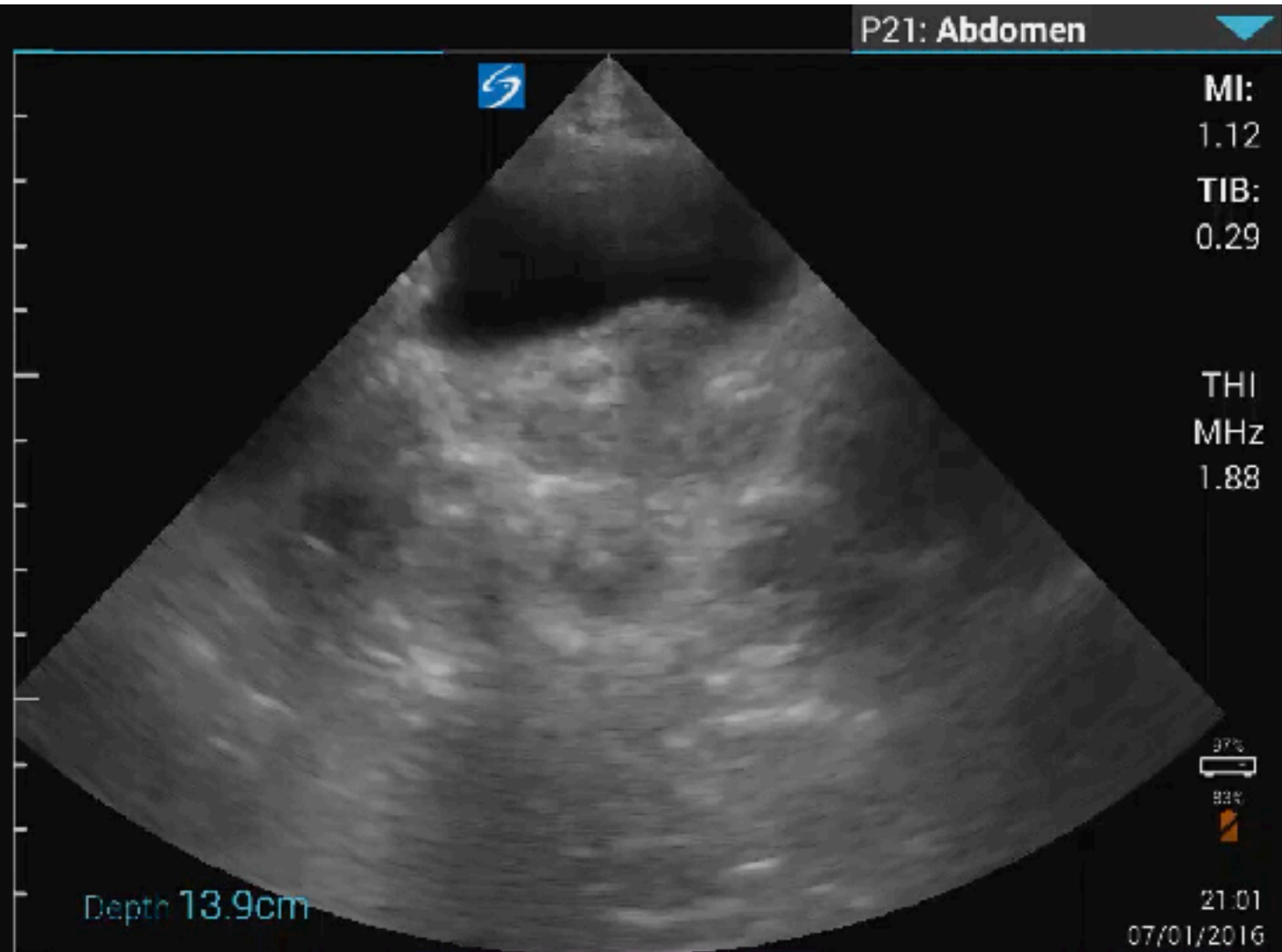
PELVIS-MALE



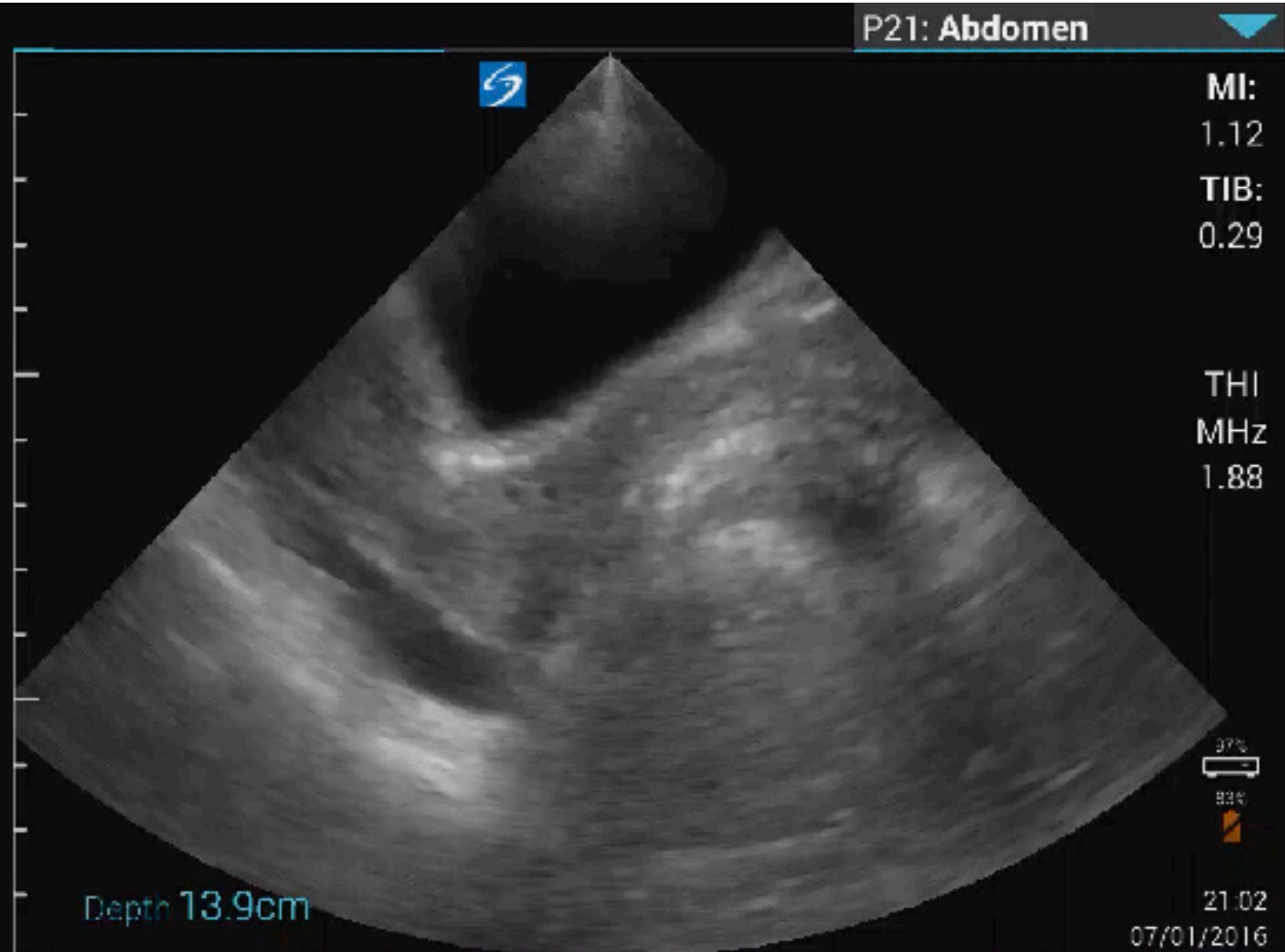
PELVIS-MALE



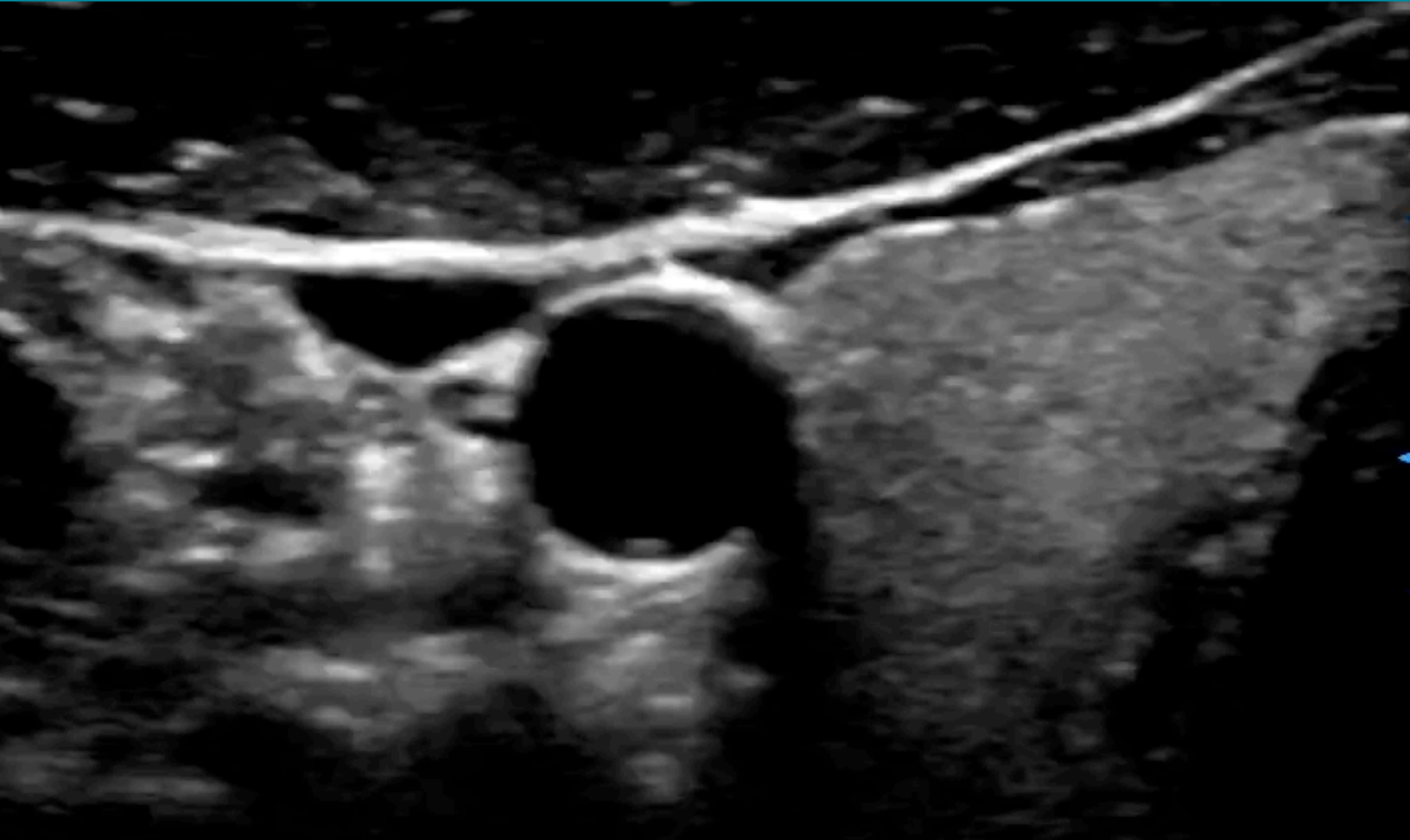
PELVIS-FEMALE



PELVIS-FEMALE



IJV



IJV

4.0cm

2D

Gen

Gn 89

C. 35

3 / 2 / 1



P R
3.0 12.0



1.0cm

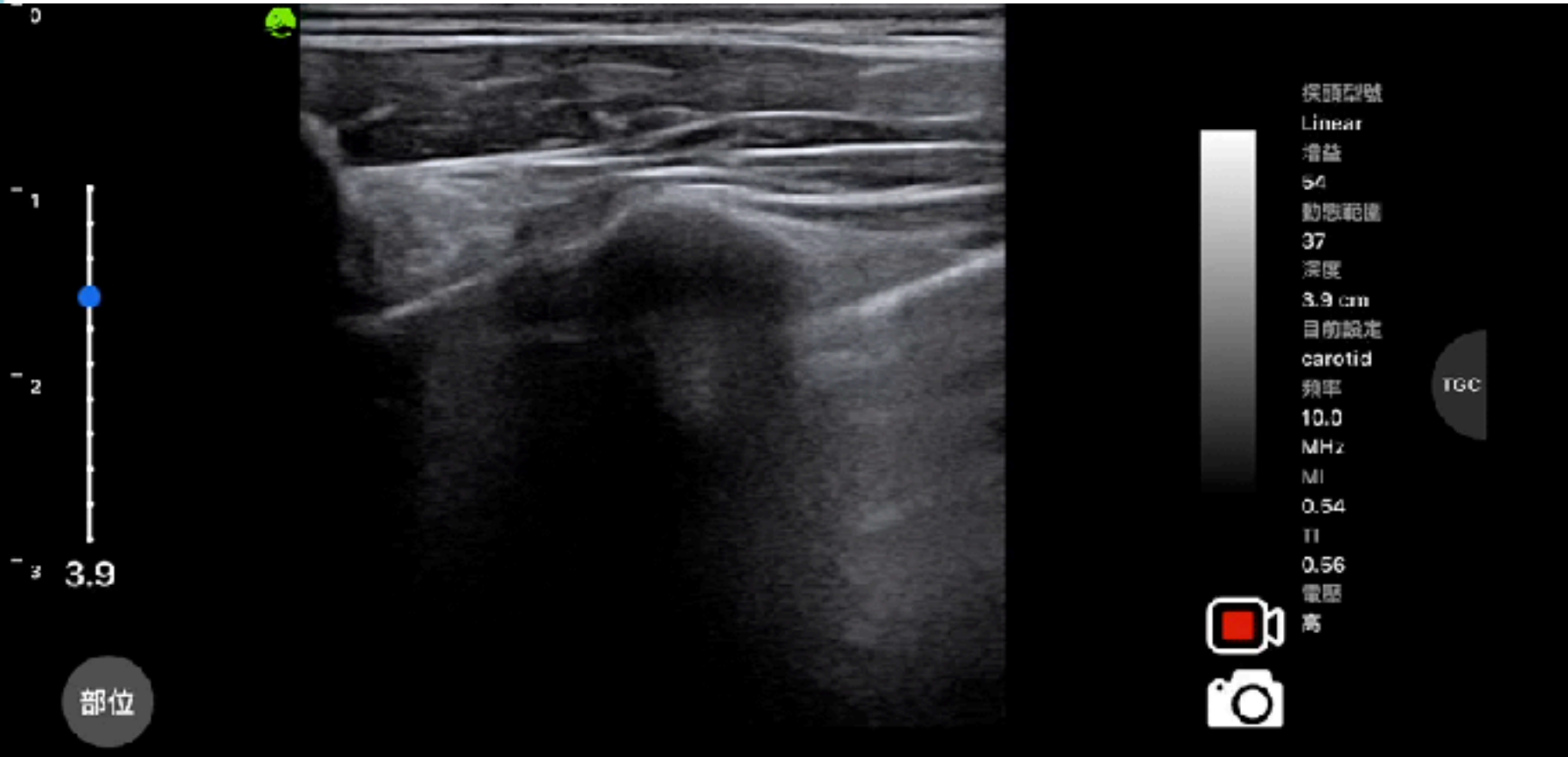
IJV

L12-3
50 Hz
2.5cm

2D
Res
Gn 55
C. 56
3/2/1



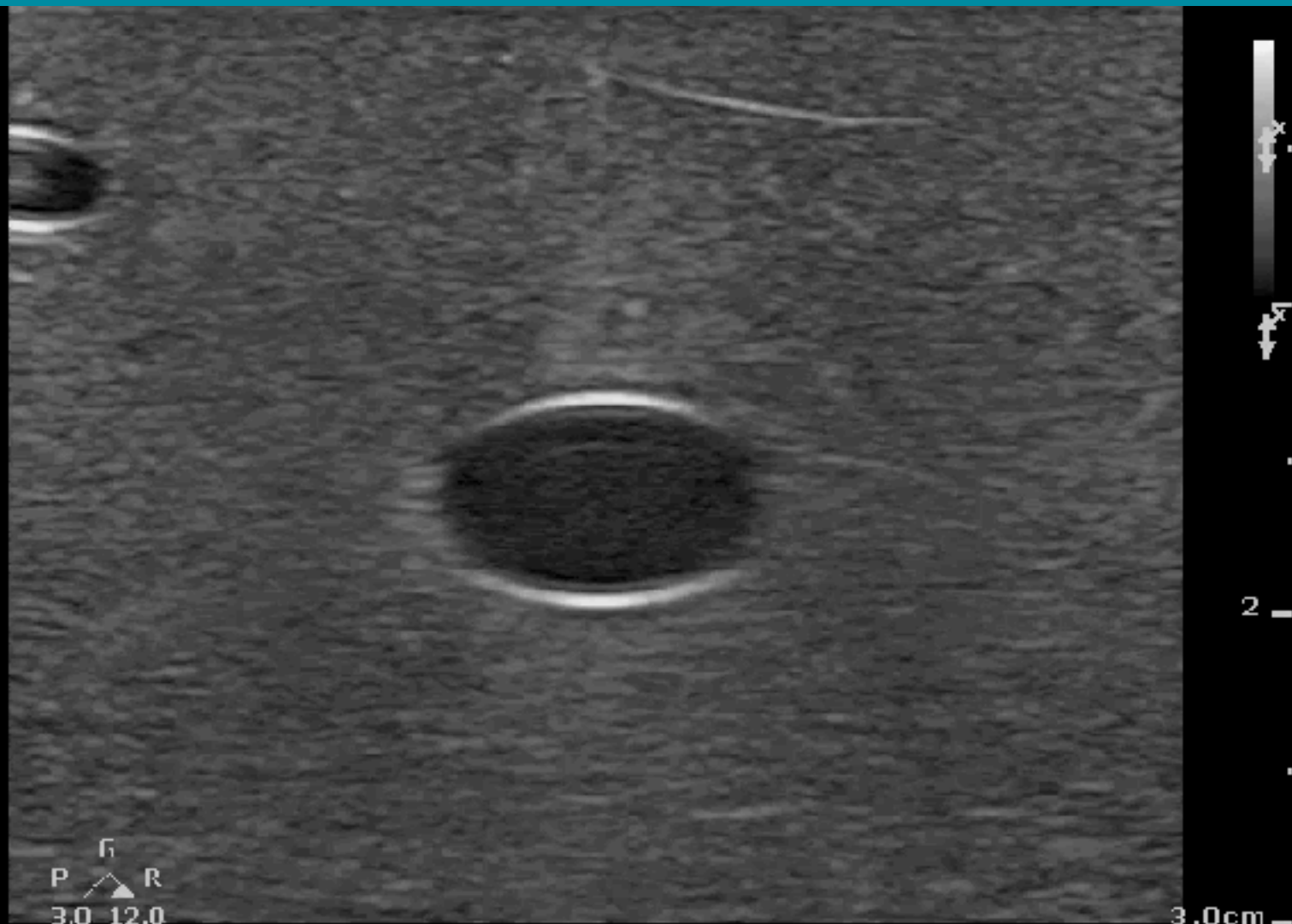
SUBCLAVIAN VEIN



OFF-PLANE

Superficial
L12-3
46 Hz
3.0cm

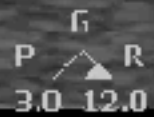
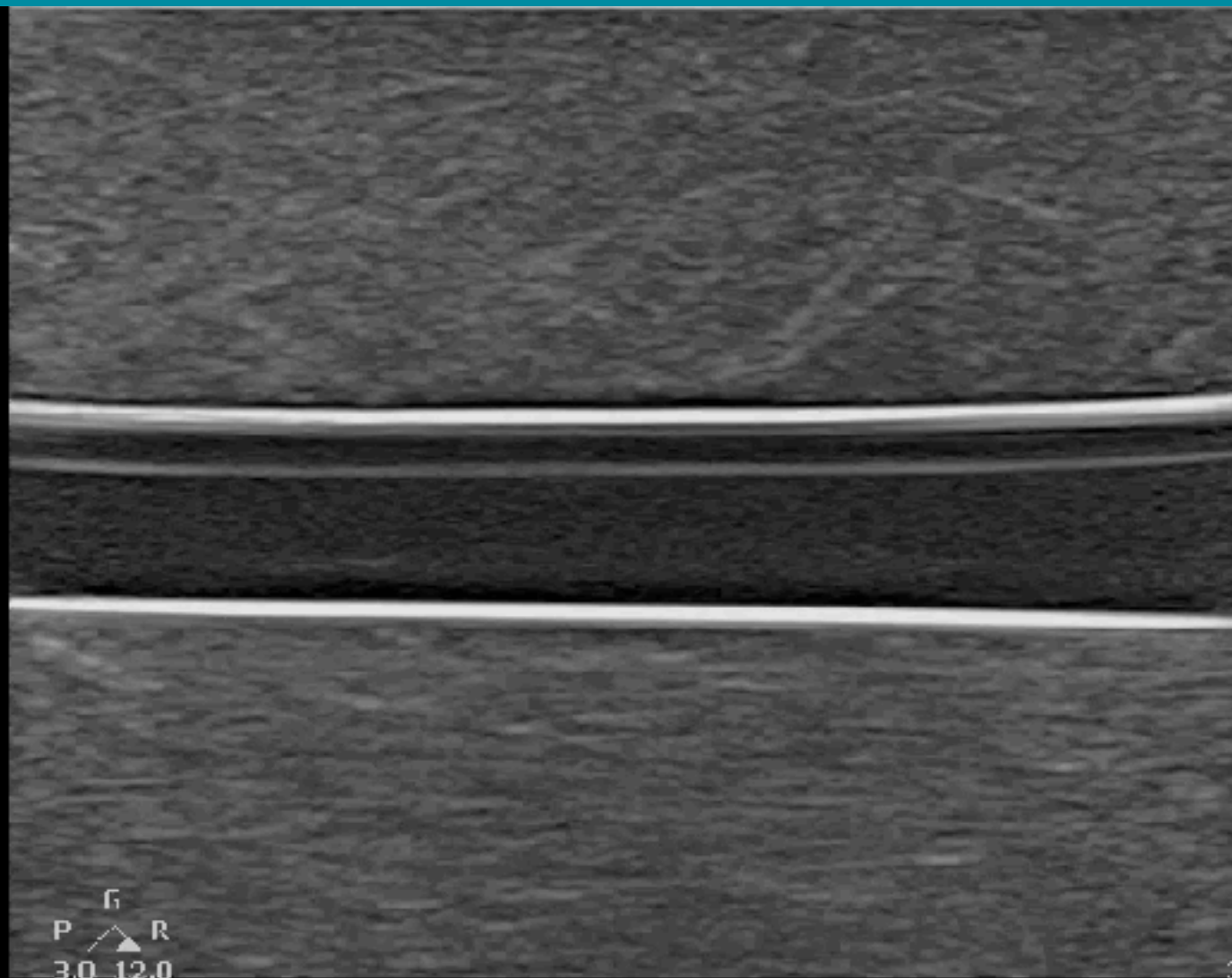
2D
Res
Gn 96
C. 56
3 / 2 / 1



OFF-PLANE

Superficial P
L12-3
46 Hz
3.0cm

2D
Res
Gn 96
C. 56
3 / 2 / 1



3.0cm

NEEDLE OPTIMIZATION

3.0cm

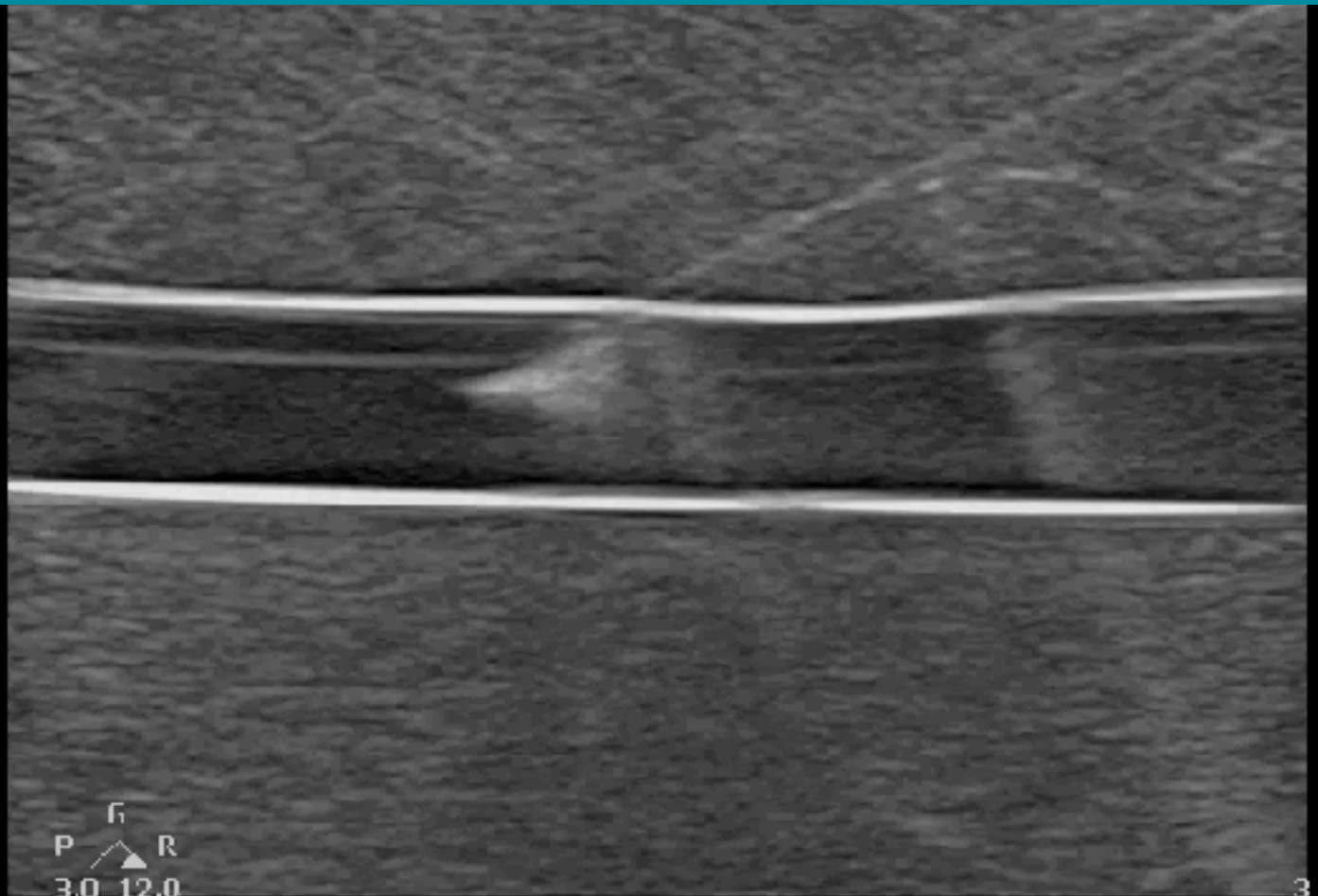
7D

Res

Gn 96

C. 56

3 / 2 / 1



2

3.0cm

OBLIQUE APPROACH

3.0cm

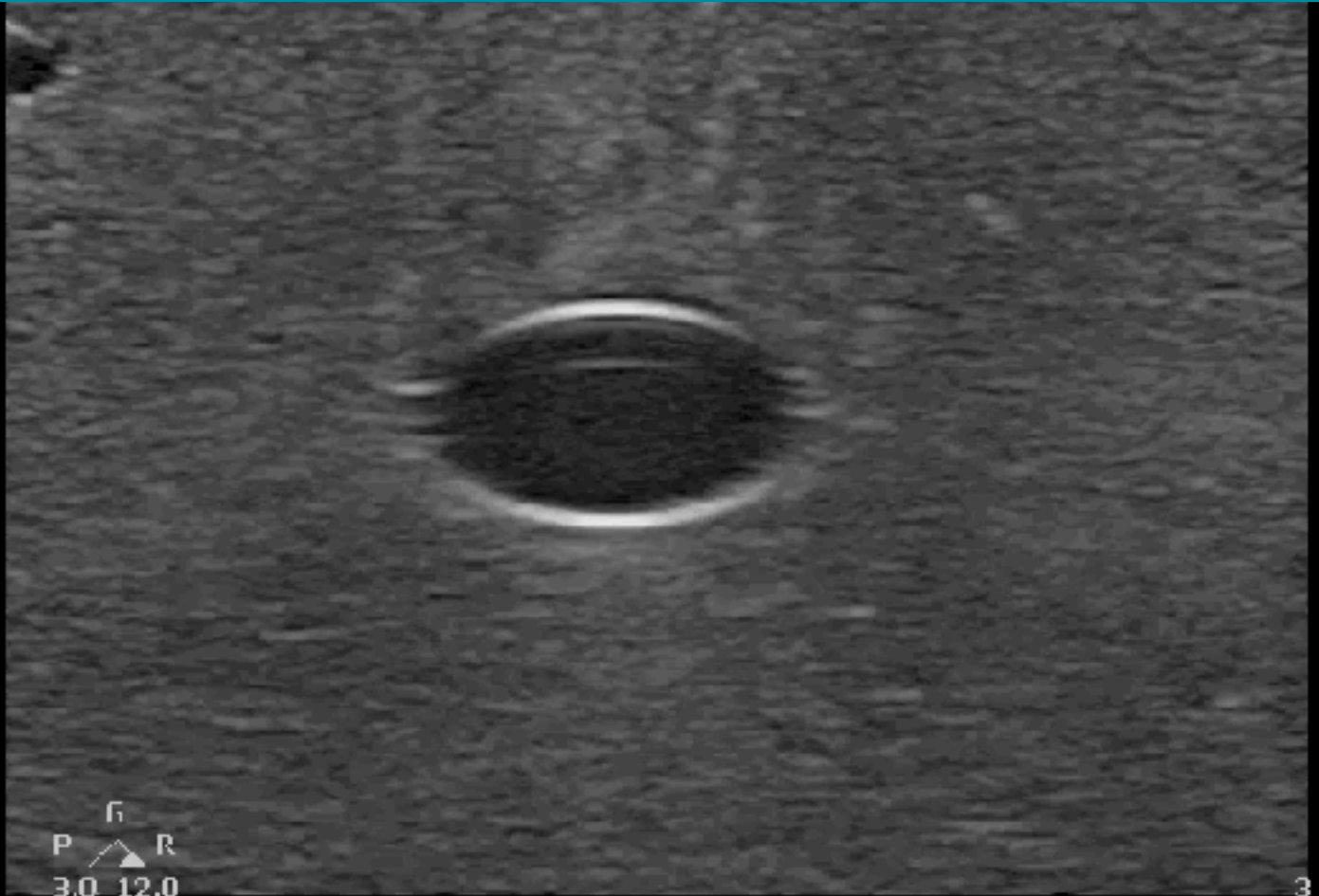
7D

Res

Gn 96

C. 56

3 / 2 / 1



3.0cm