

How ?

How do we biopsy?

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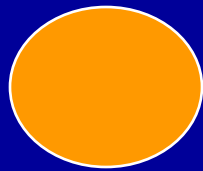
Rhodri M. Evans

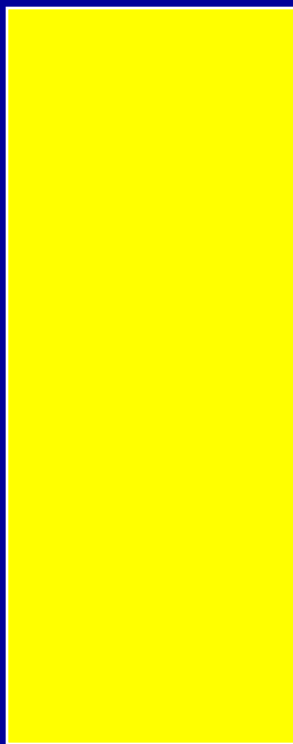
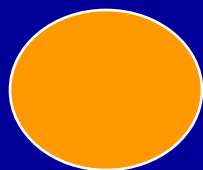
Fine Needle or Core Biopsy?

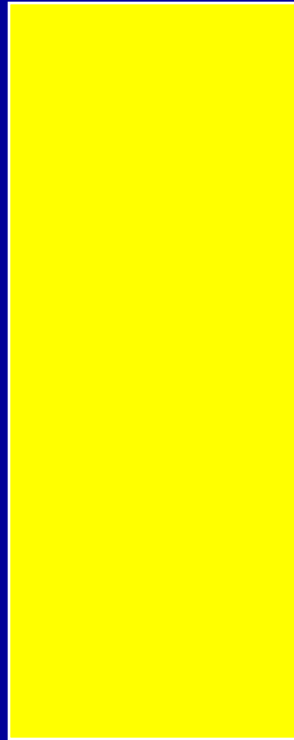
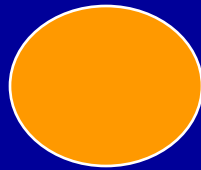
- First line – cytology.
- If cytology can't give the answer – core biopsy.
- ?Lymphoma – core biopsy.

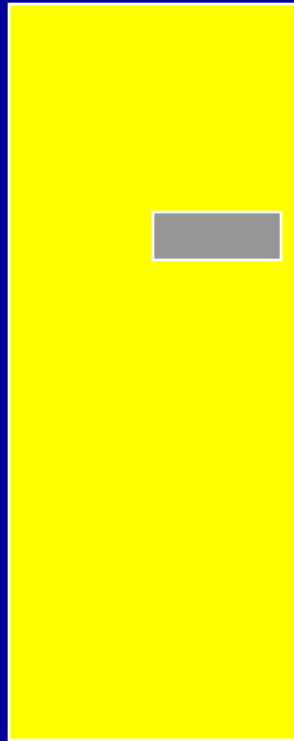
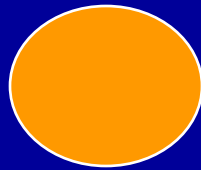
Needles – Ultrasound.

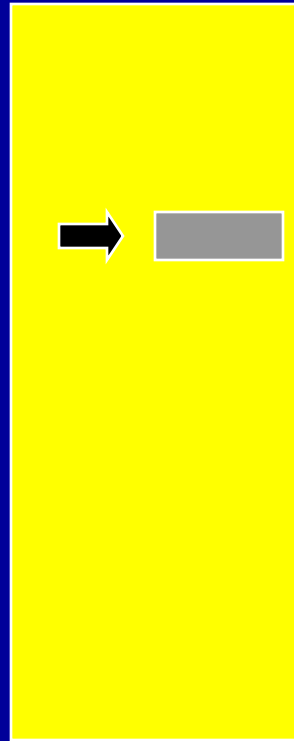
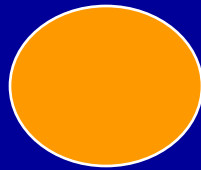
- Positioning.
- Equipment.
- Technique.

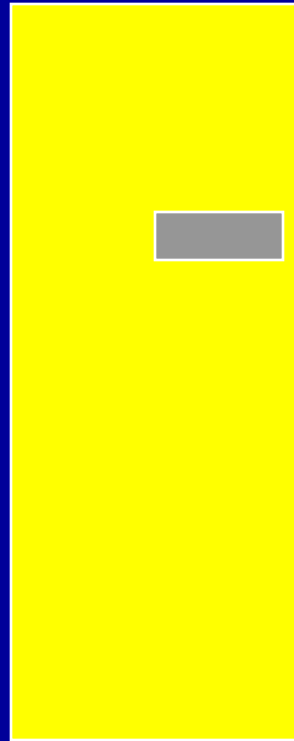
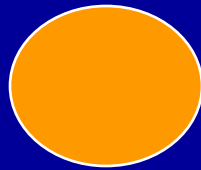


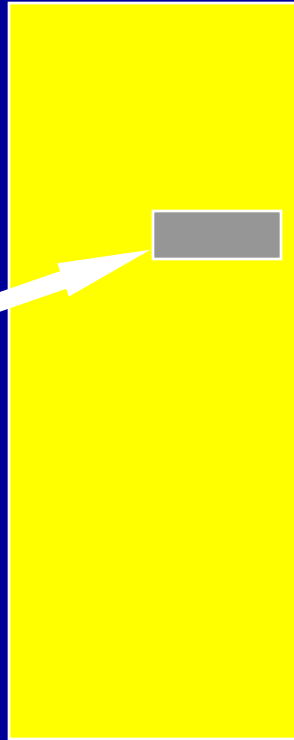
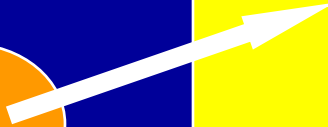
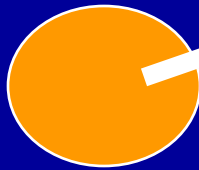


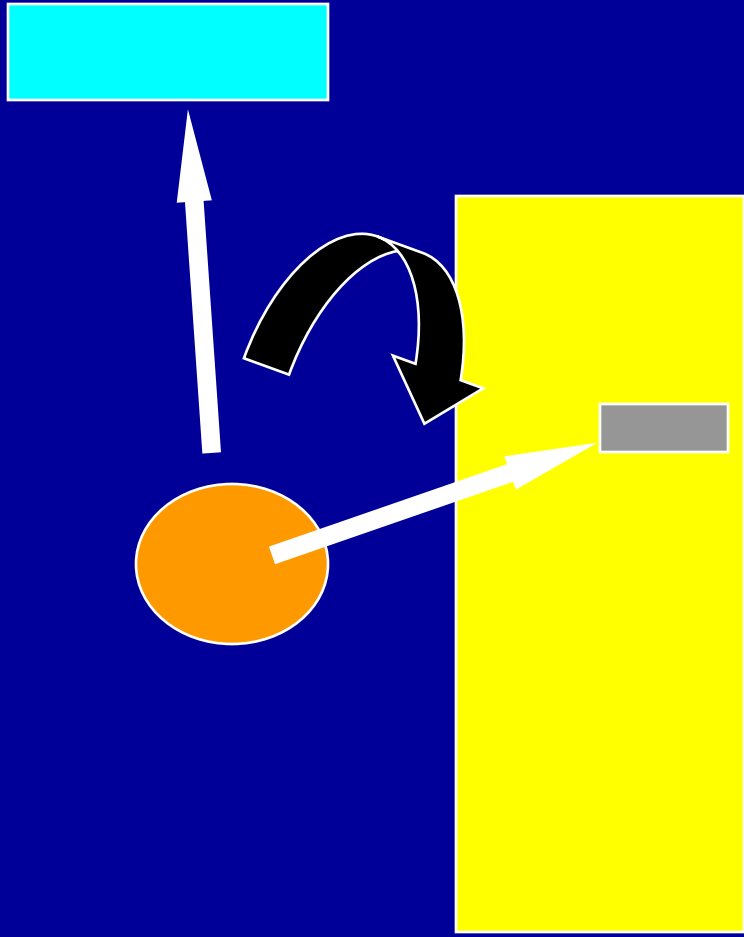


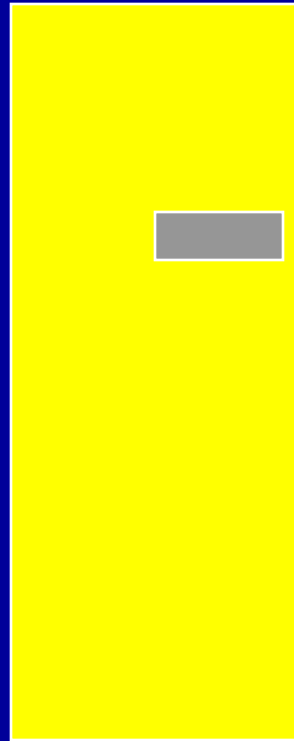
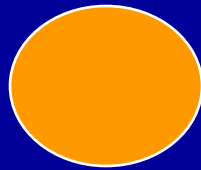


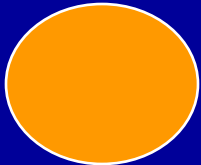
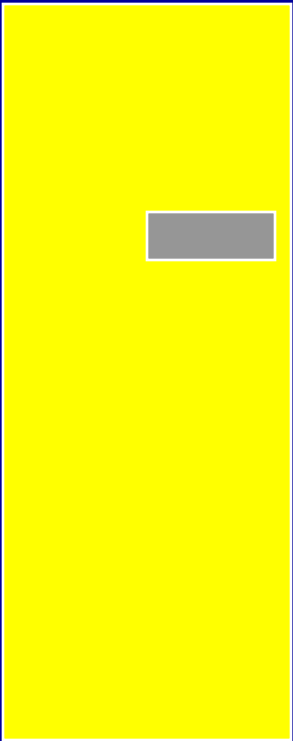


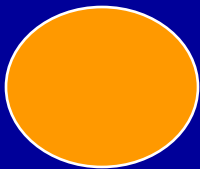
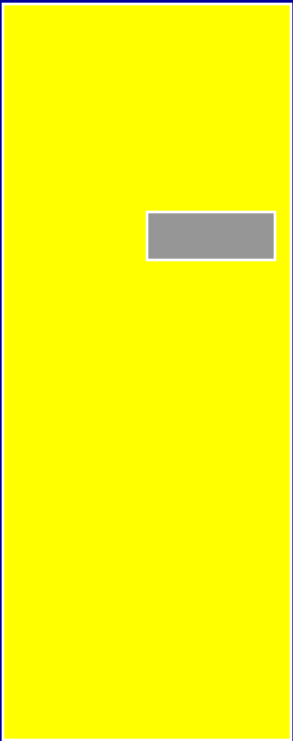


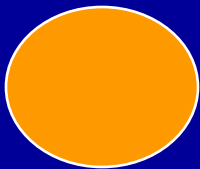
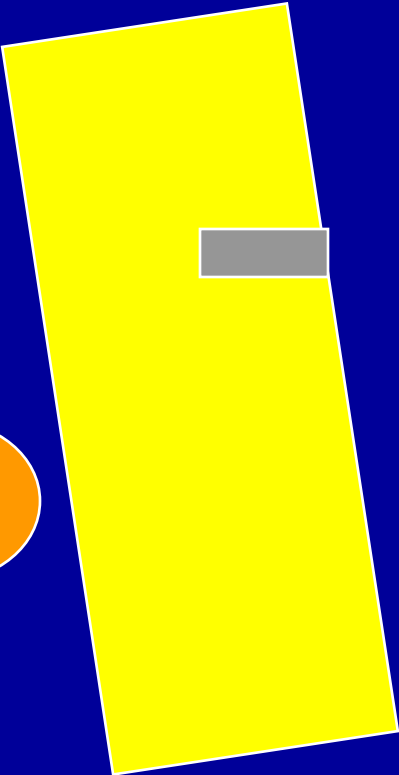


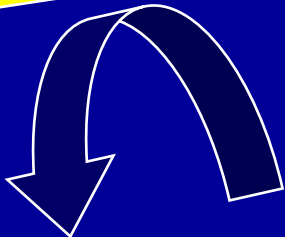
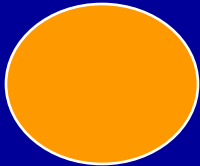
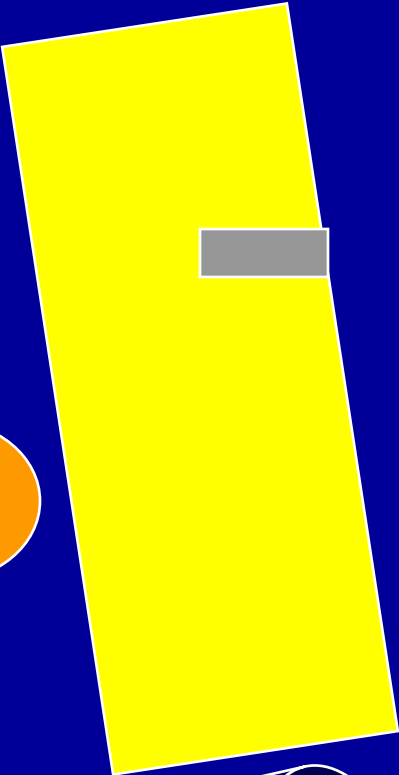


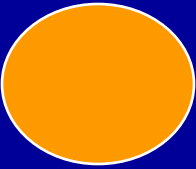
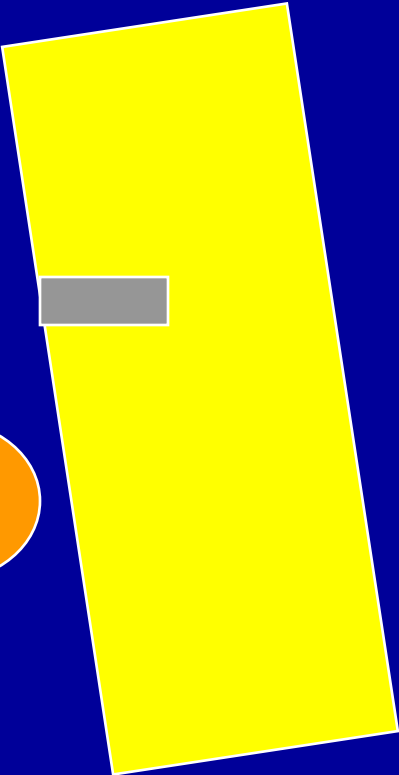


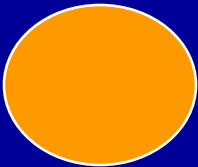
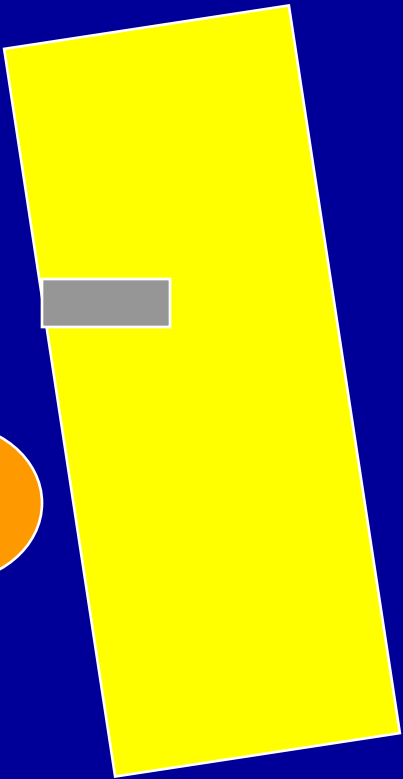


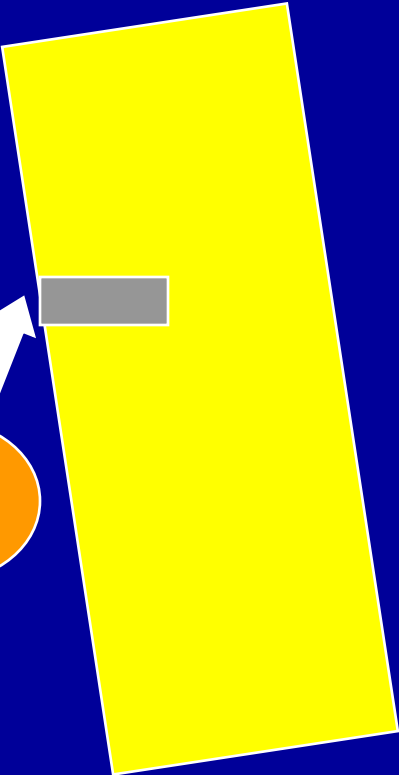
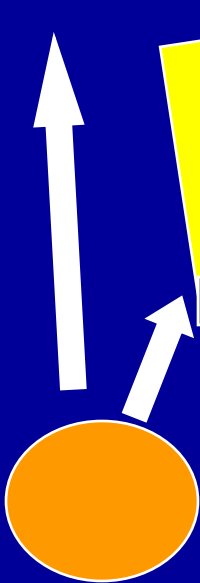


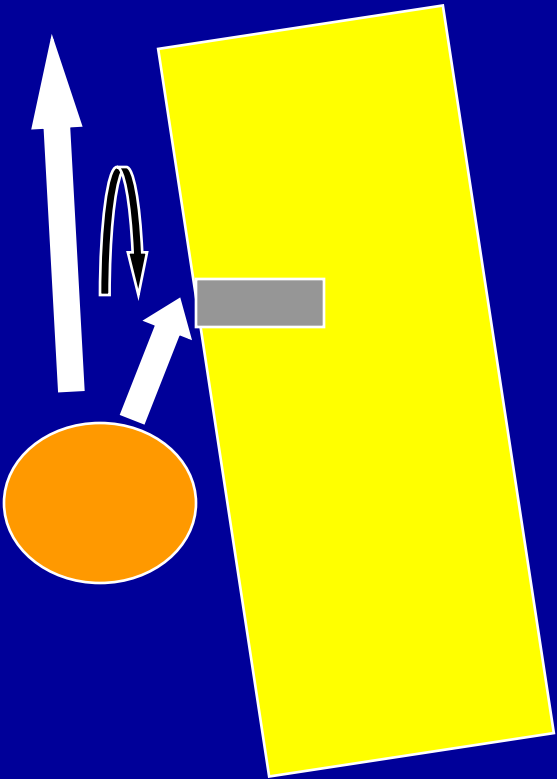


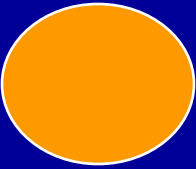
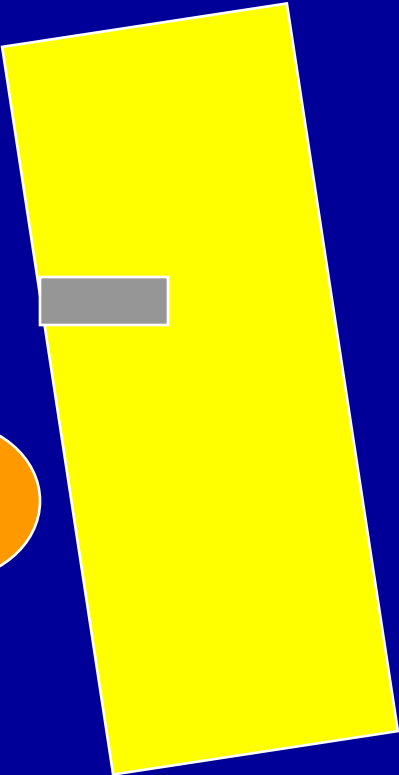


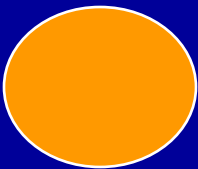
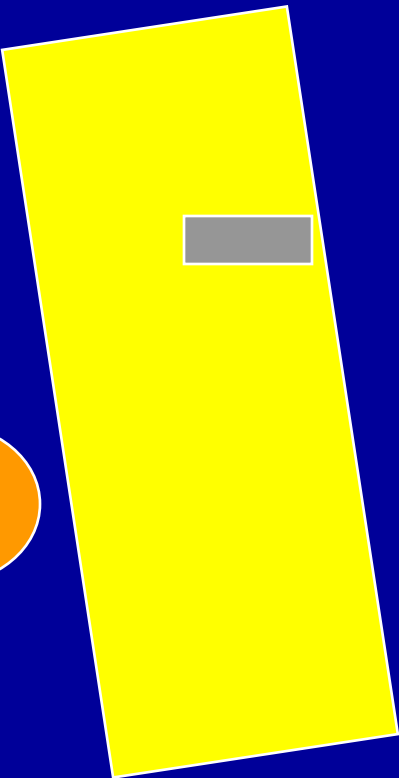


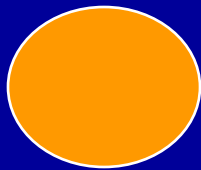
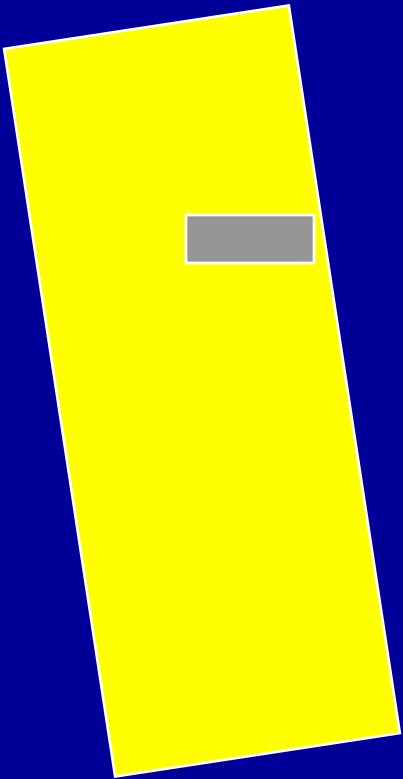


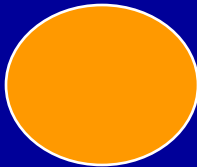
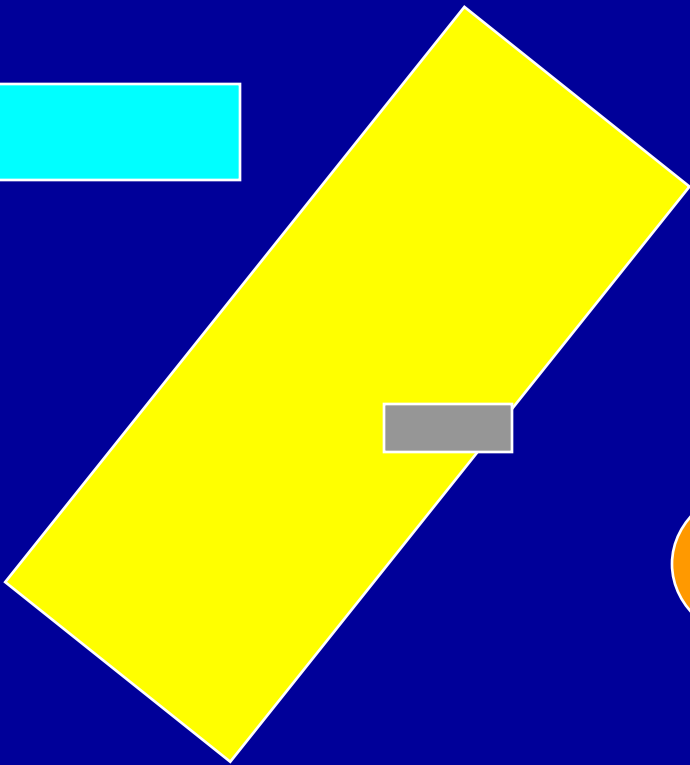


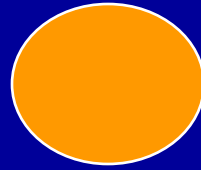
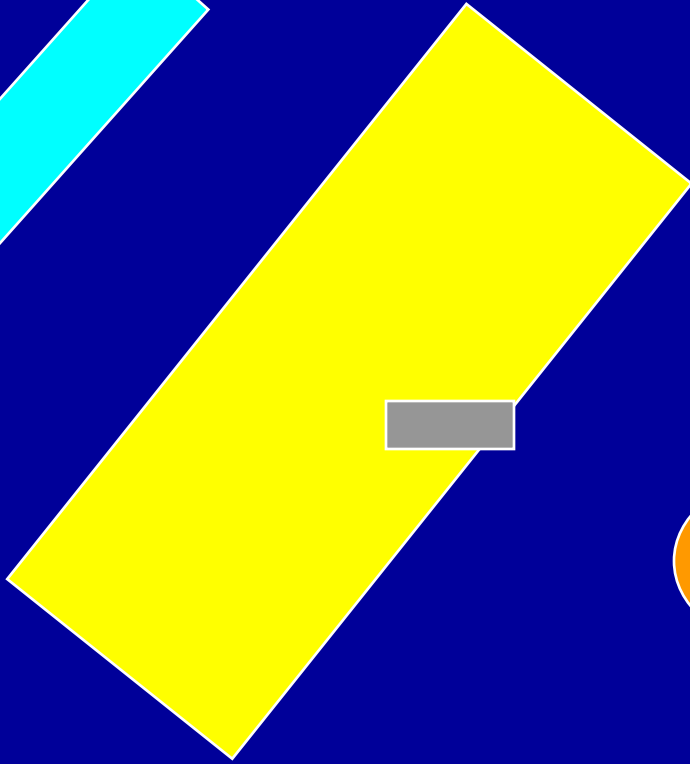
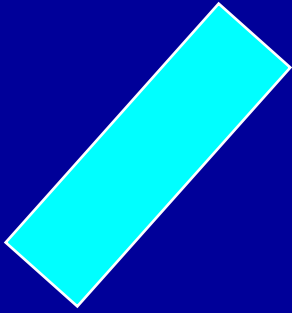


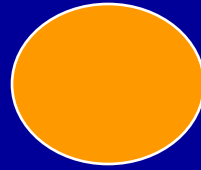
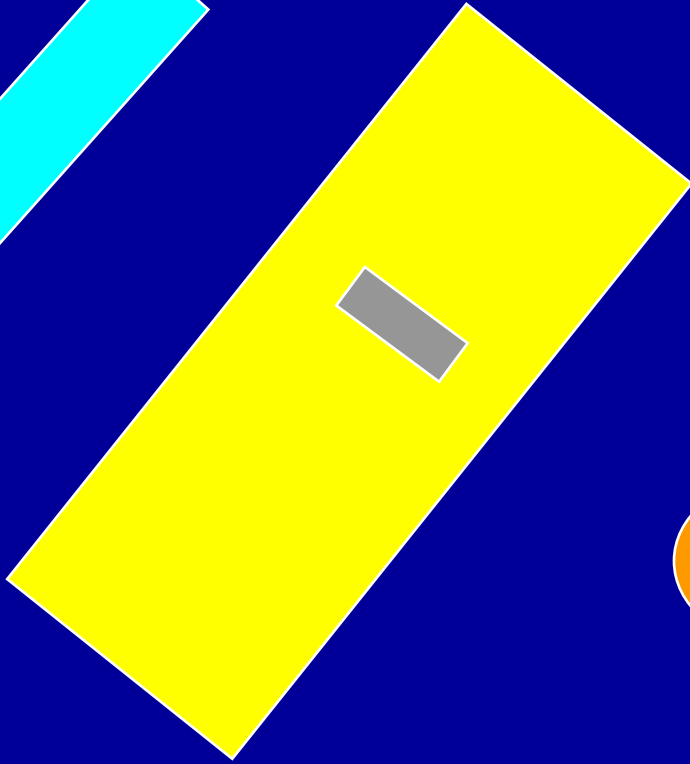
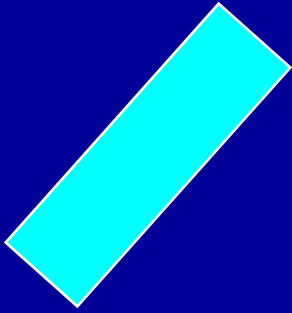


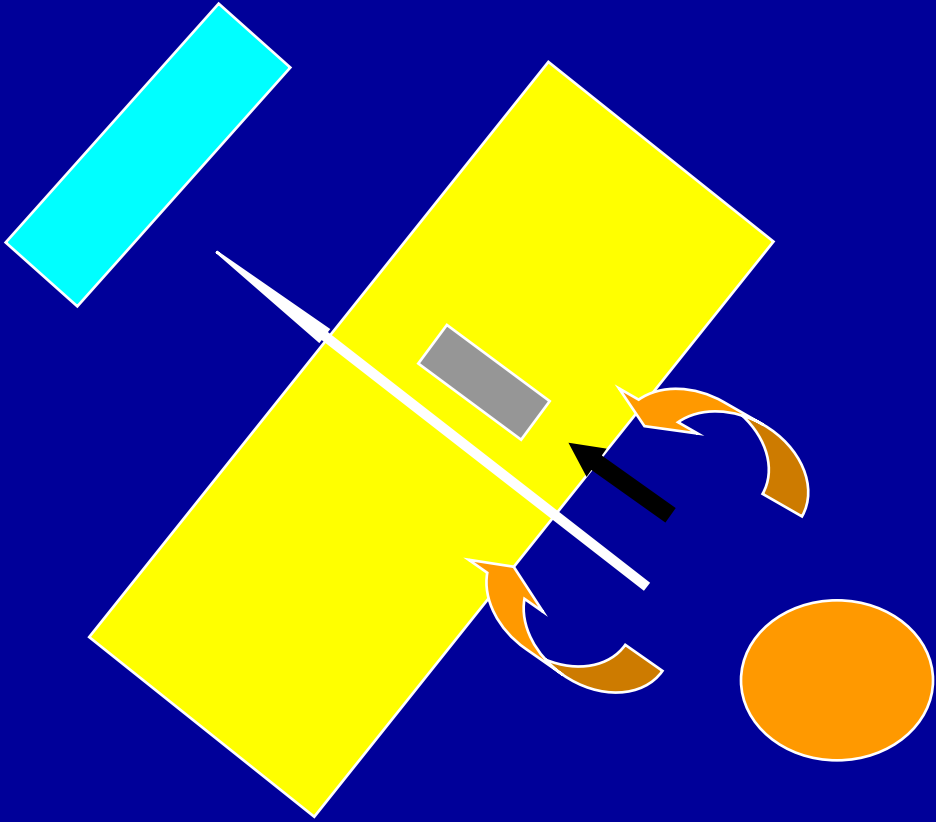












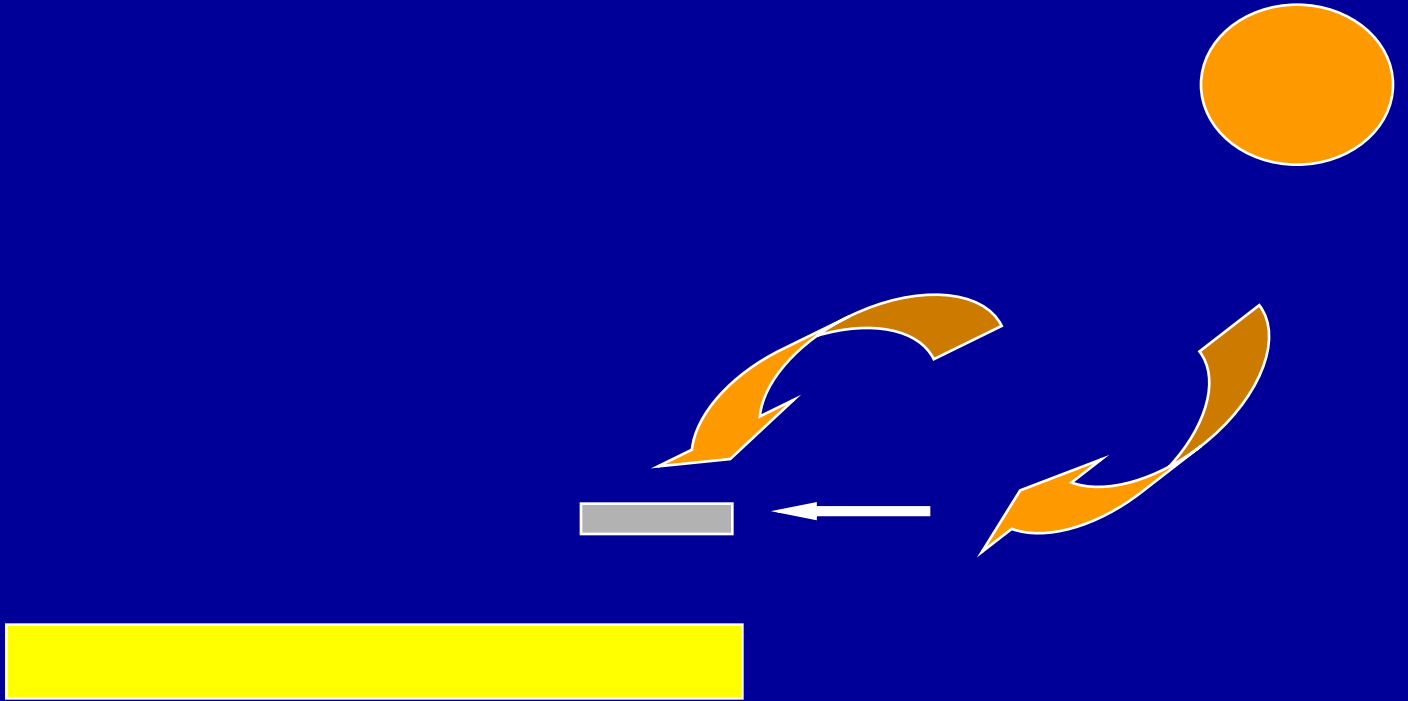


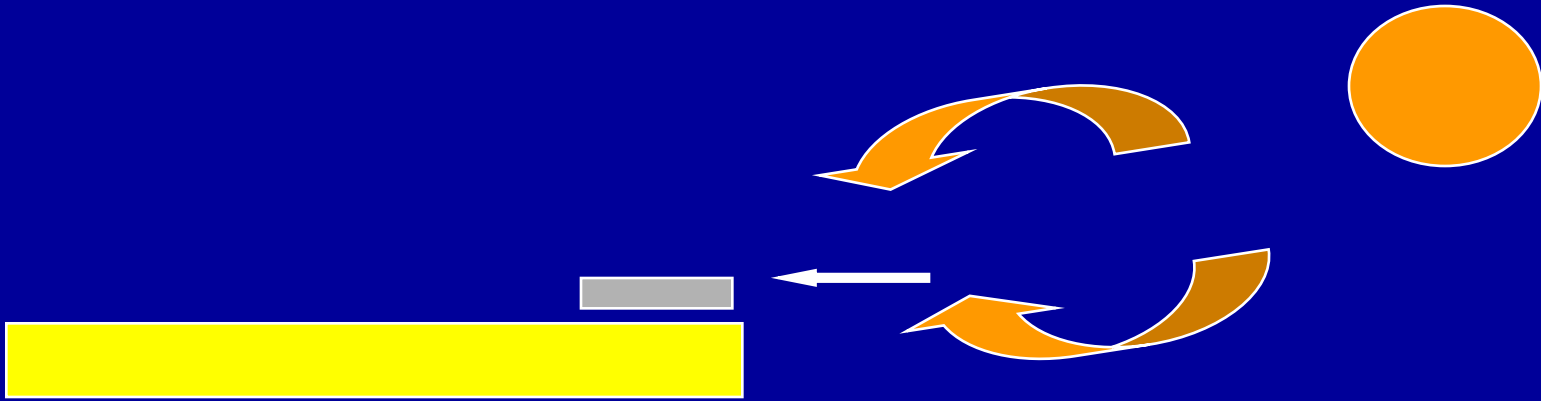


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Positioning.



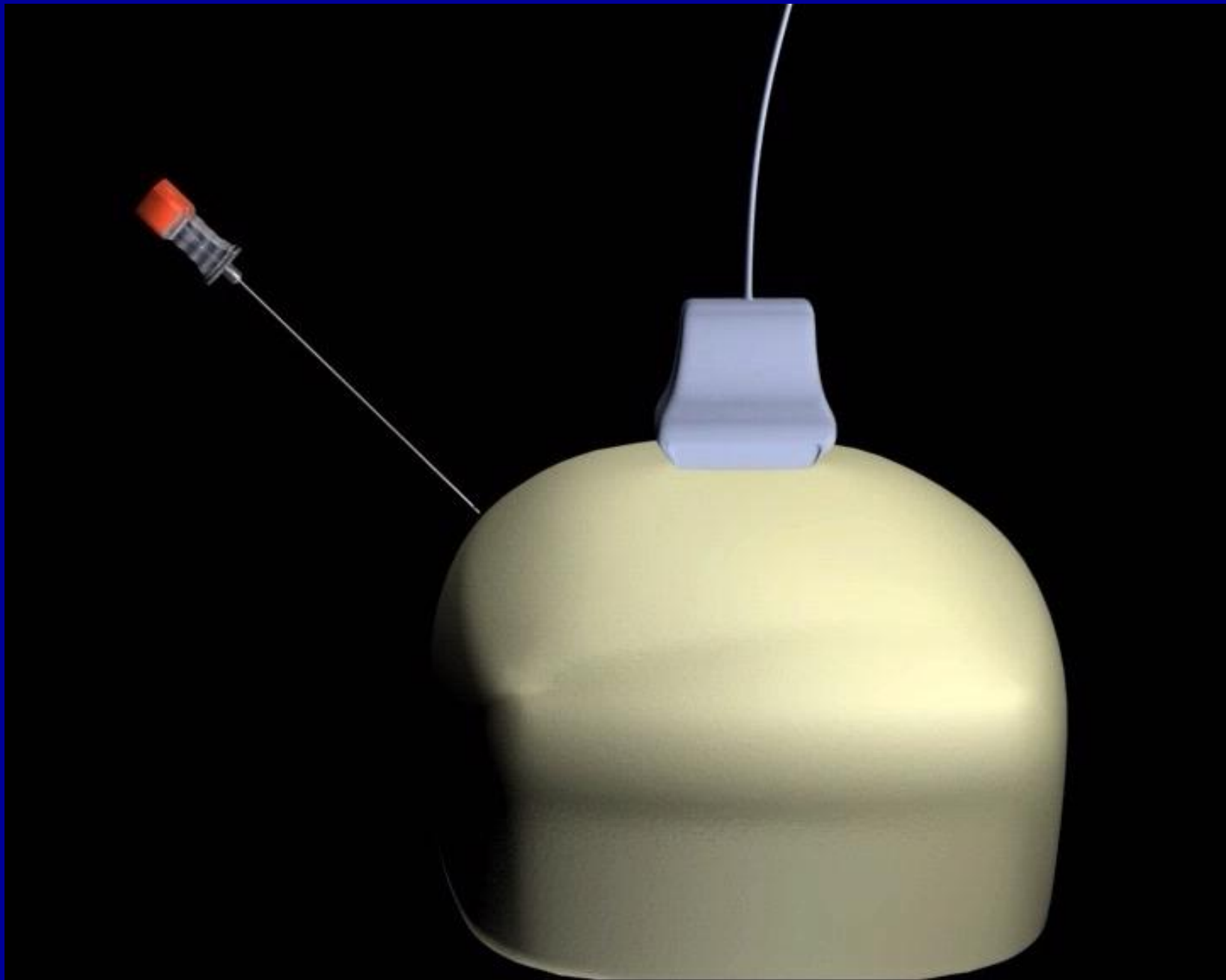




Needles.

- Positioning.
- Parallelism.





Needles.

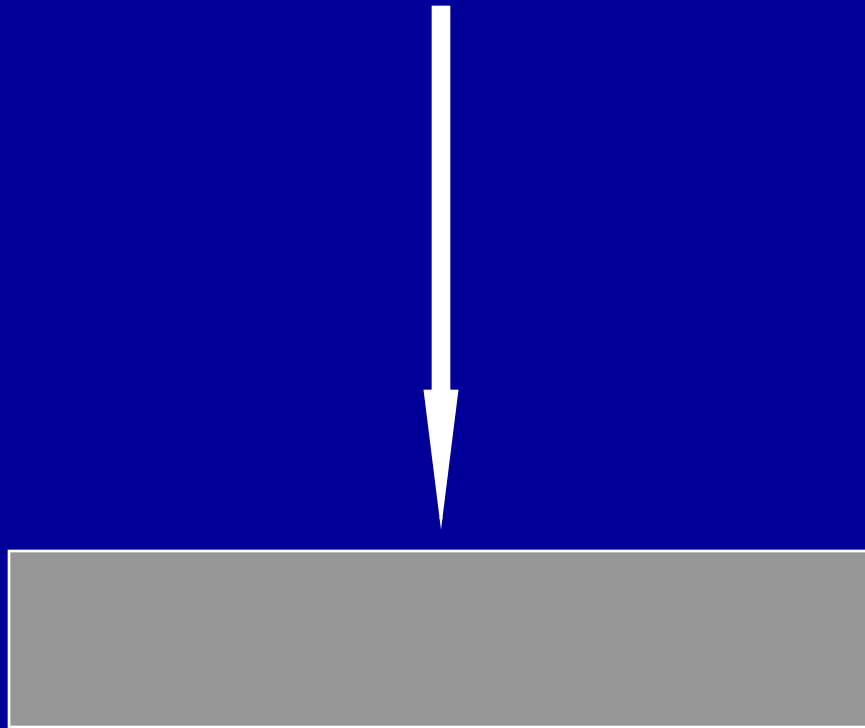
- Positioning.
- Equipment.



Technique.

- Avoid contamination – cling film.
- Short axis approach.
- Rotation, rotation, rotation.
- Aspiration or no aspiration?
- Release pressure before withdrawal.
- Increase specimen yield – preparation.





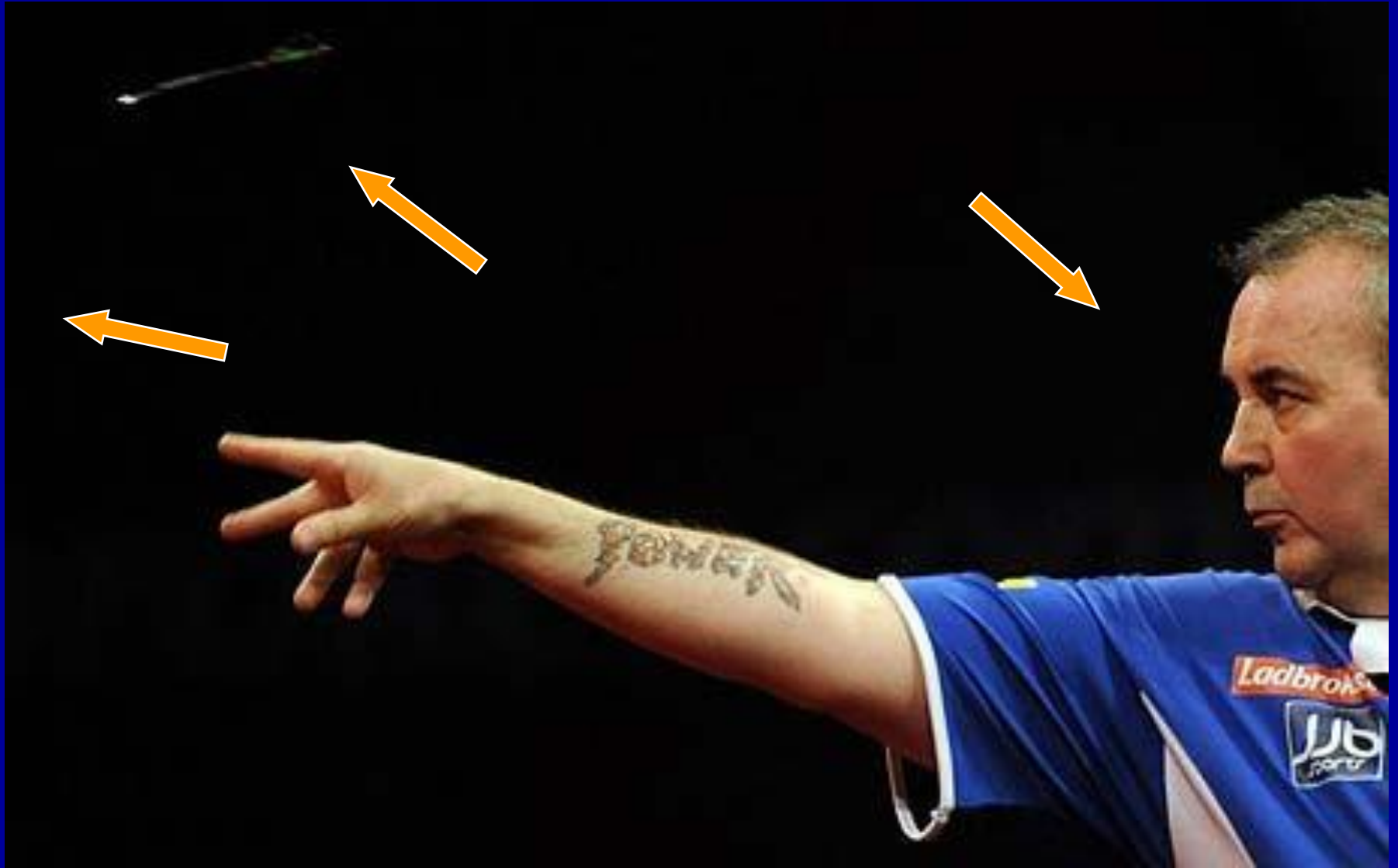




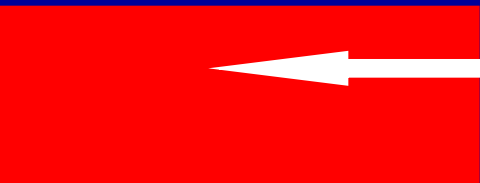
Technique.











In practise?

- Knowledge
- Hand/eye coordination.
- Needle/probe.
- Needle/monitor.

Map 3
150dB/C 2
Persist Med
2D Opt:Res

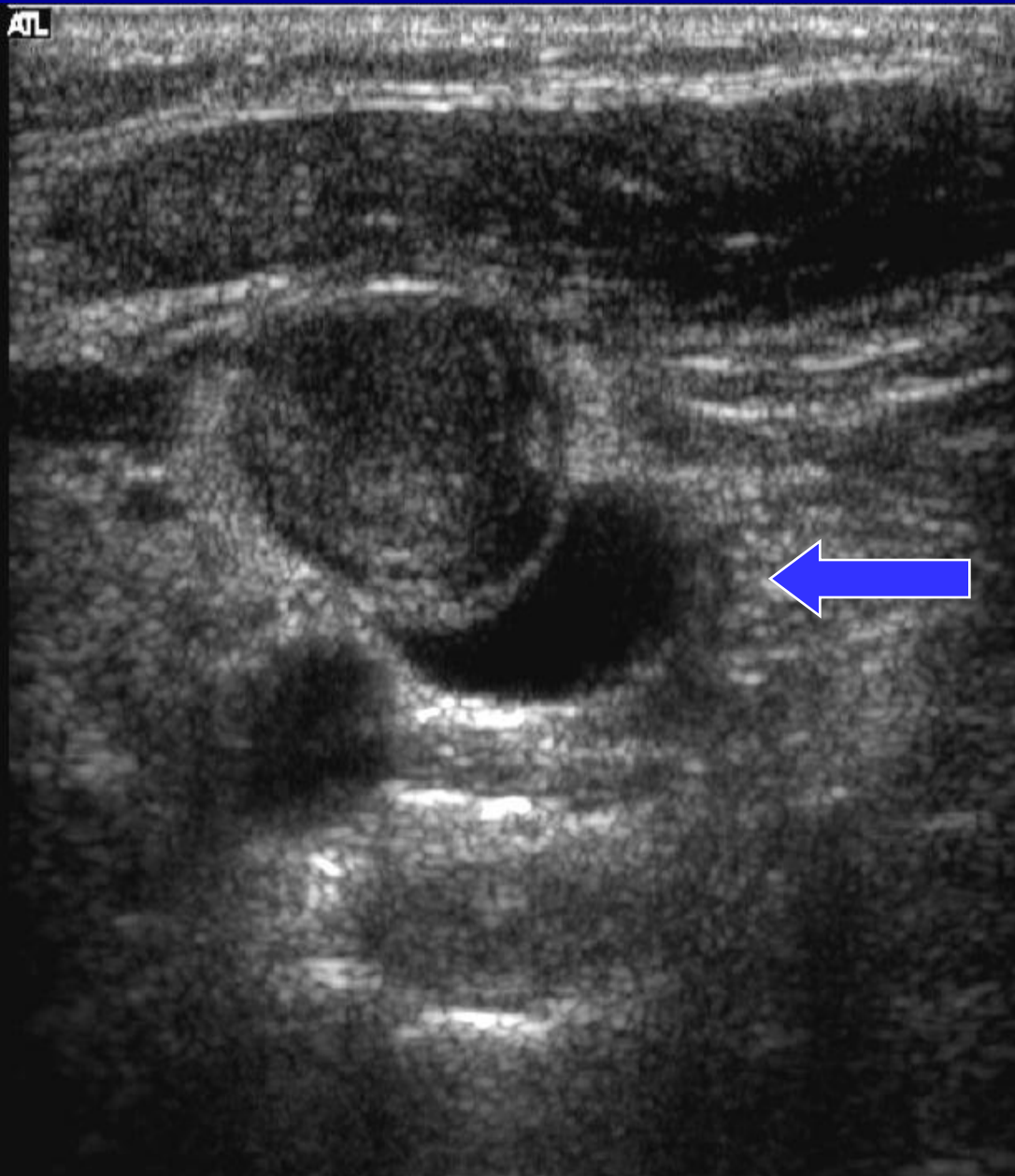


-1

-2

-3

Map 3
150dB/C 2
Persist Med
2D Opt:Res



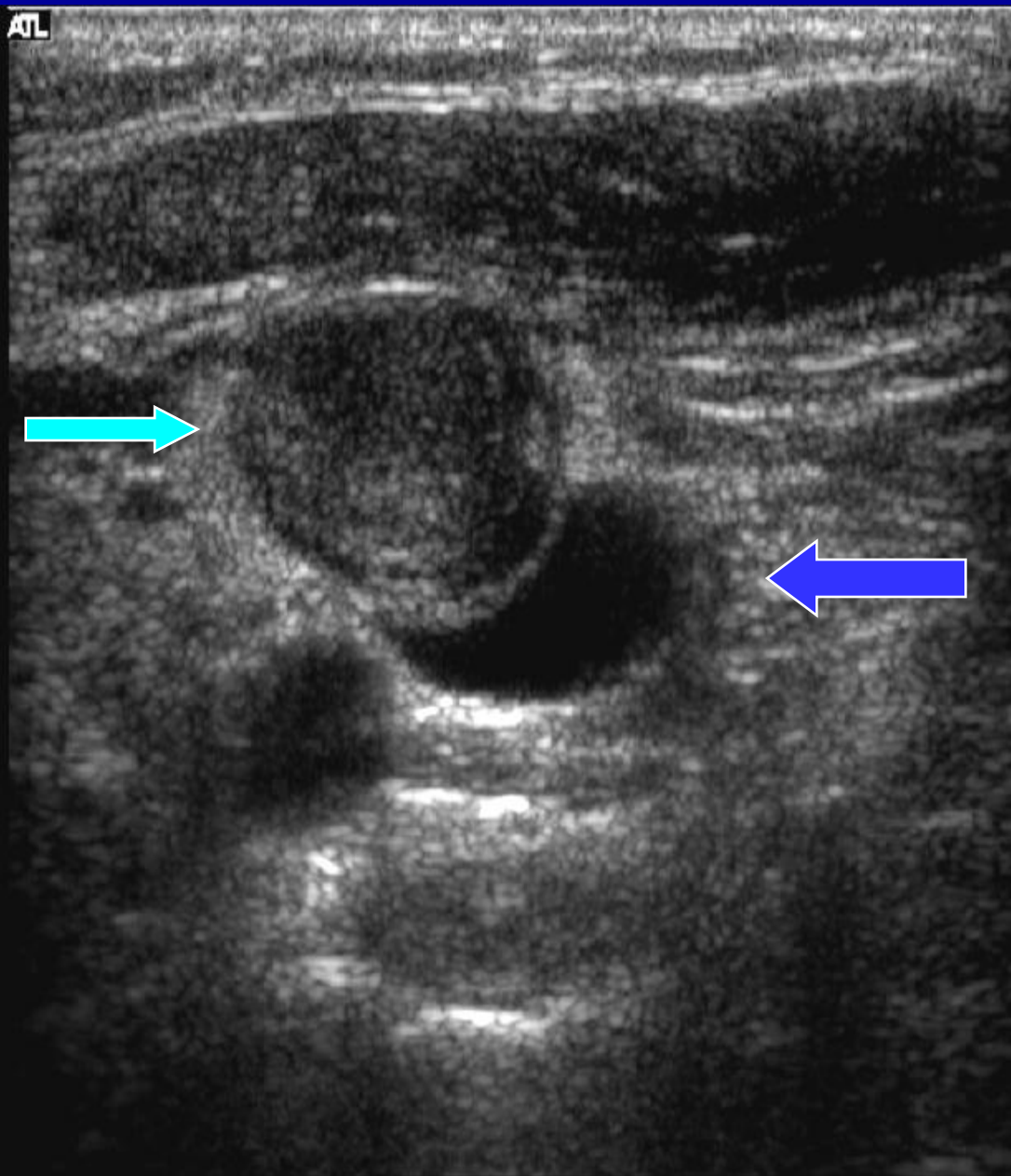
-1

-2

-3

Map 3
150dB/C 2
Persist Med
2D Opt:Res

ATL



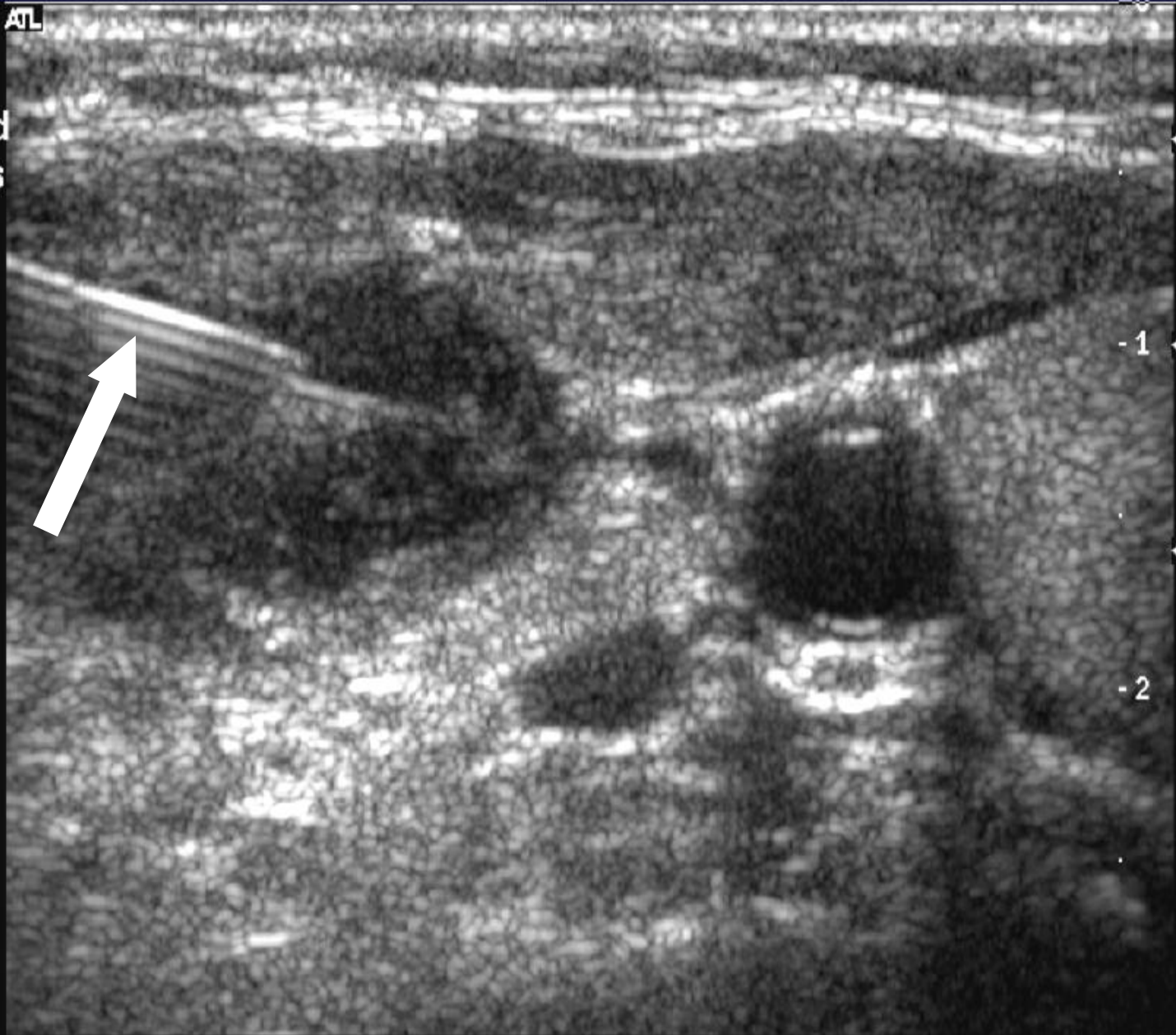
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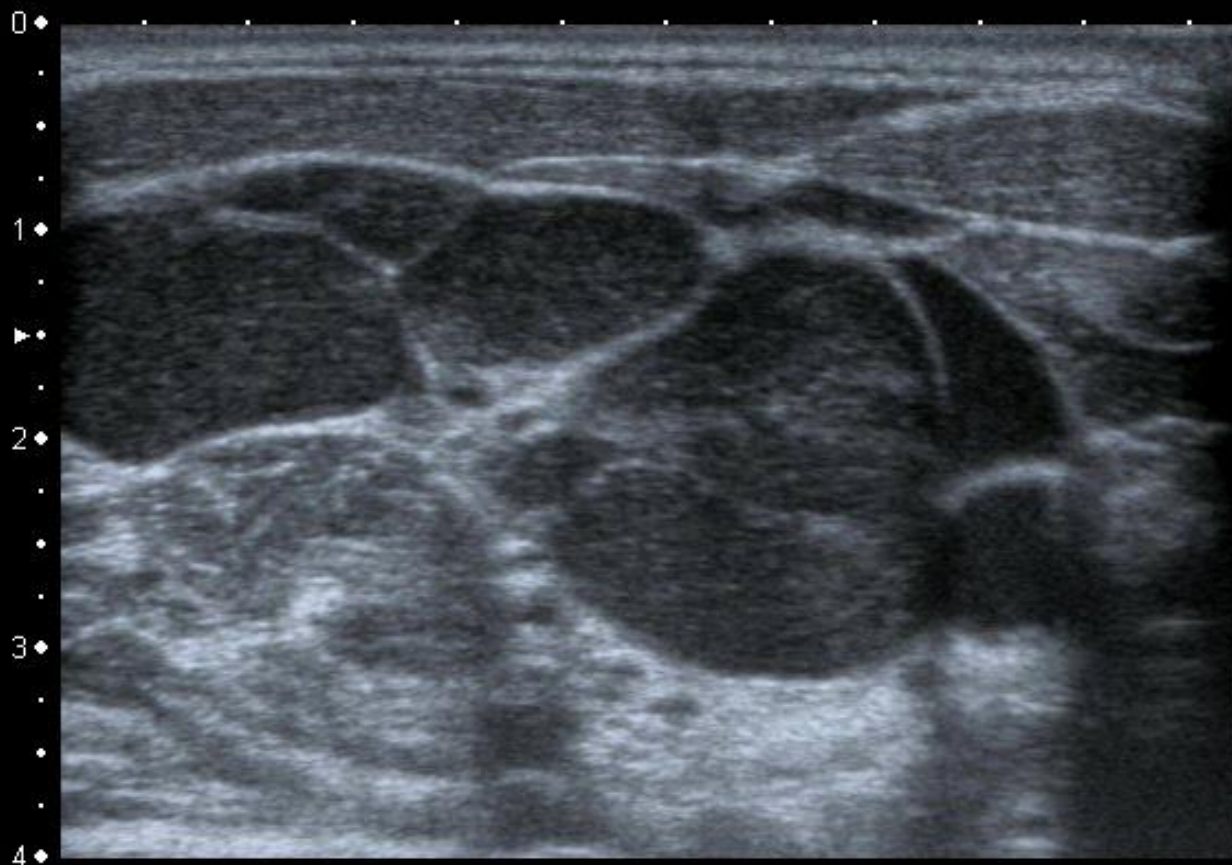
-2

-3



Map 3
150dB/C 2
Persist Med
2D Opt:Res

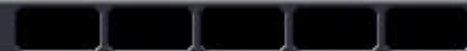


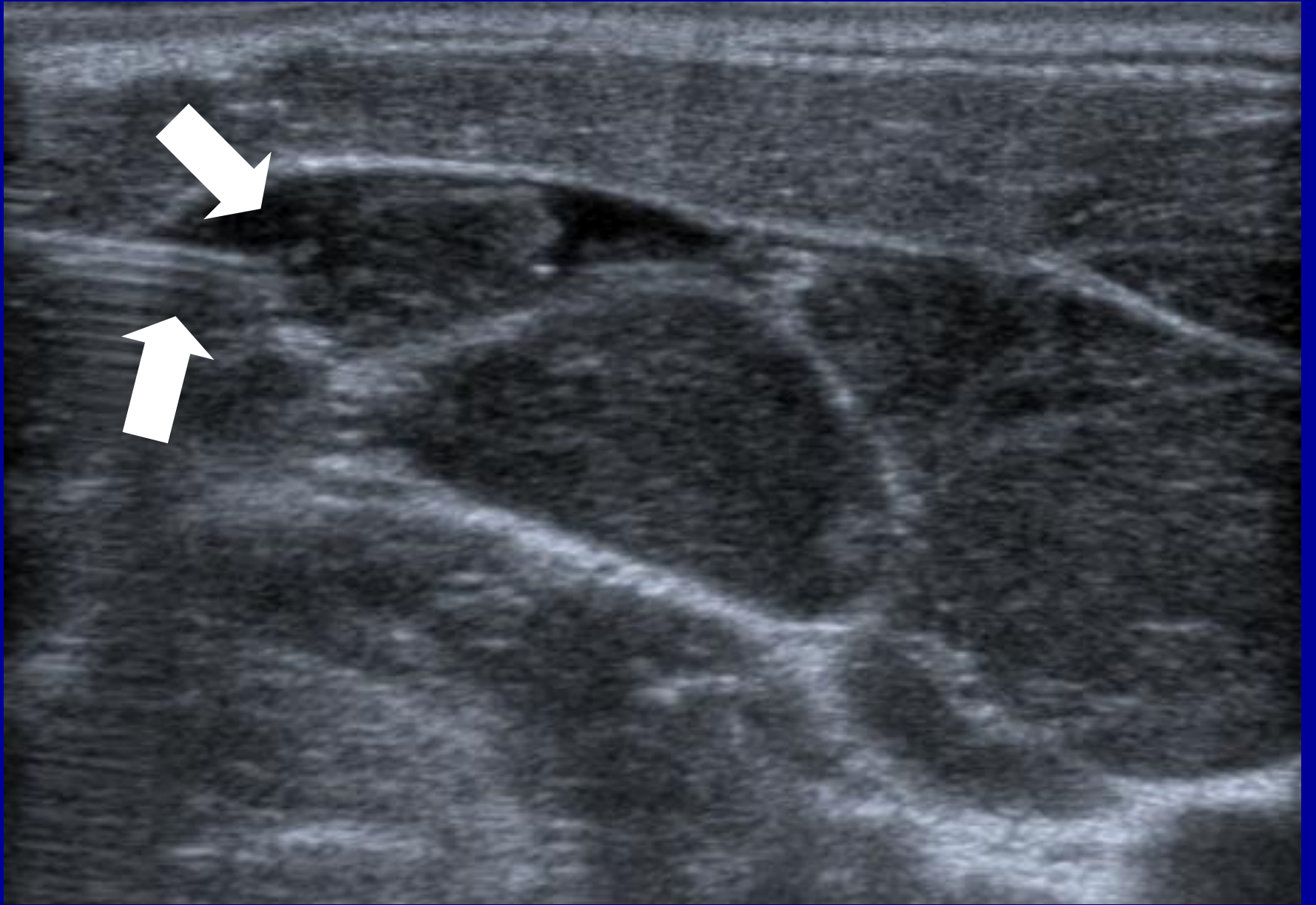


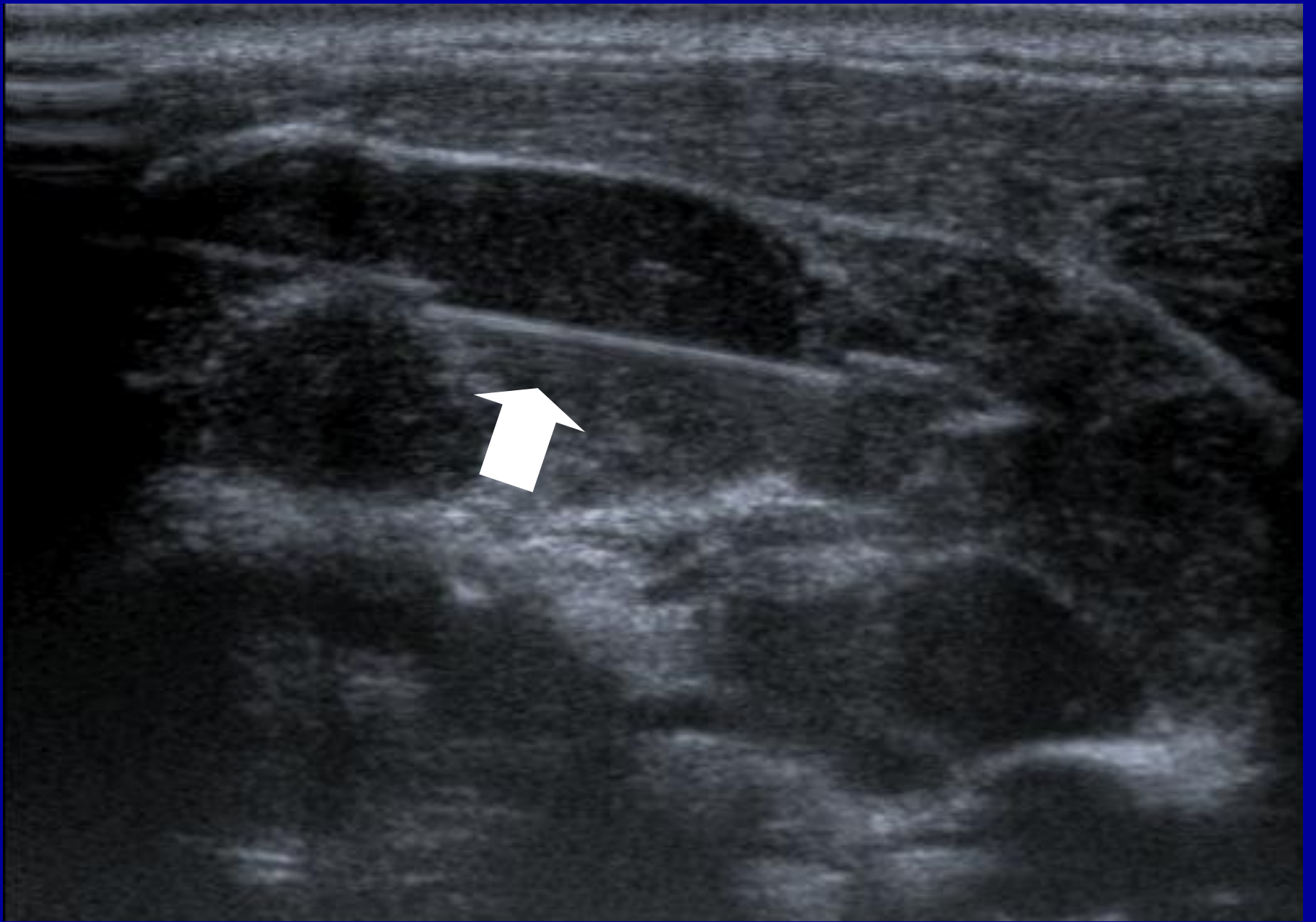
MI:1.6
2DG
80
DR
70

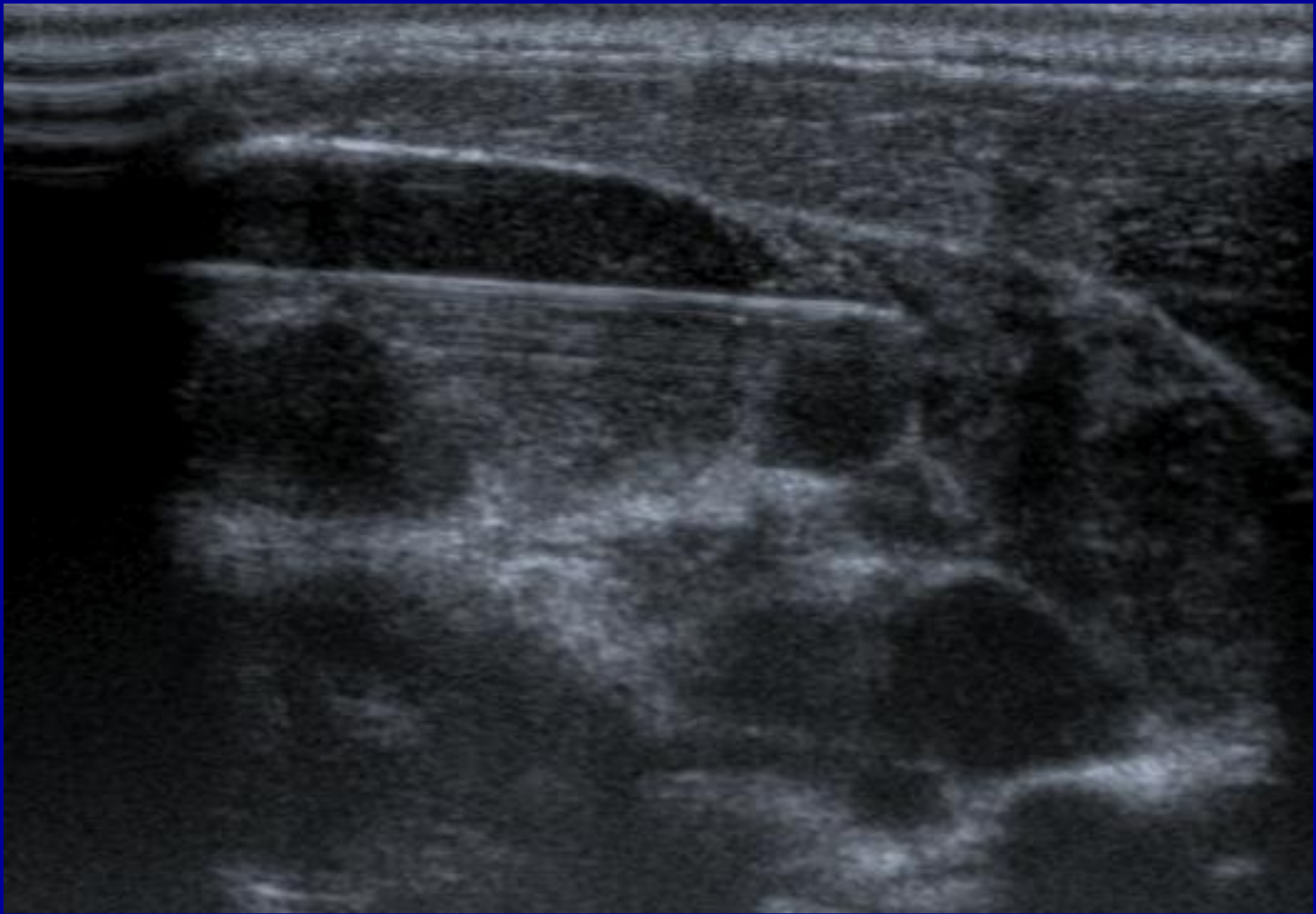
12L5
T9.0
33 fps

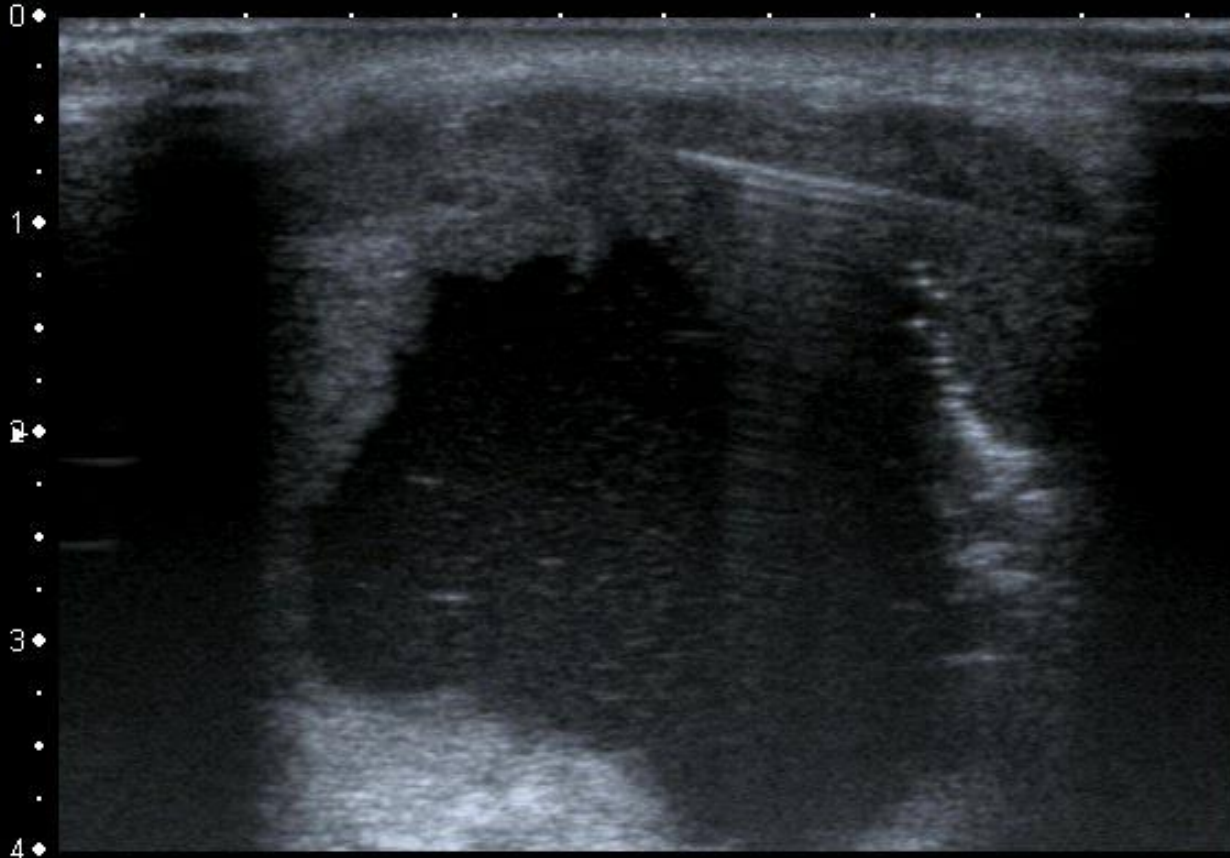
0 ◆
1 ◆
2 ◆
3 ◆
4 ◆





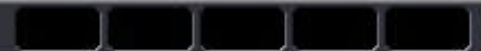


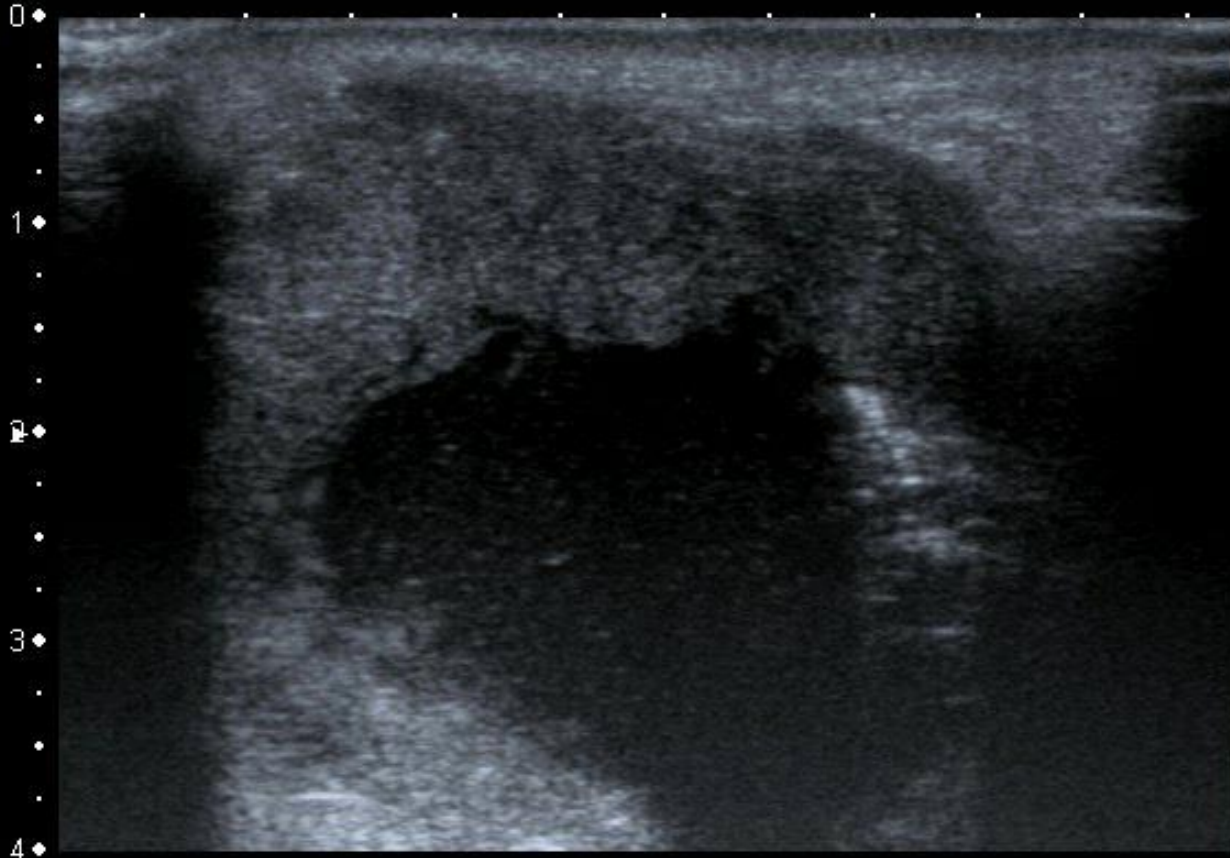




MI:1.6
2DG
85
DR
70

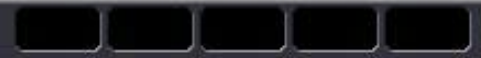
12L5
T9.0
37 fps





MI:1.6
2DG
85
DR
70

12L5
T9.0
37 fps



Signs?



0 T

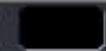


MI:1.6
2DG
80
DR
70

12L5
T9.0

4

27 fps





0 ♦ T



2 ♦

4 ♦

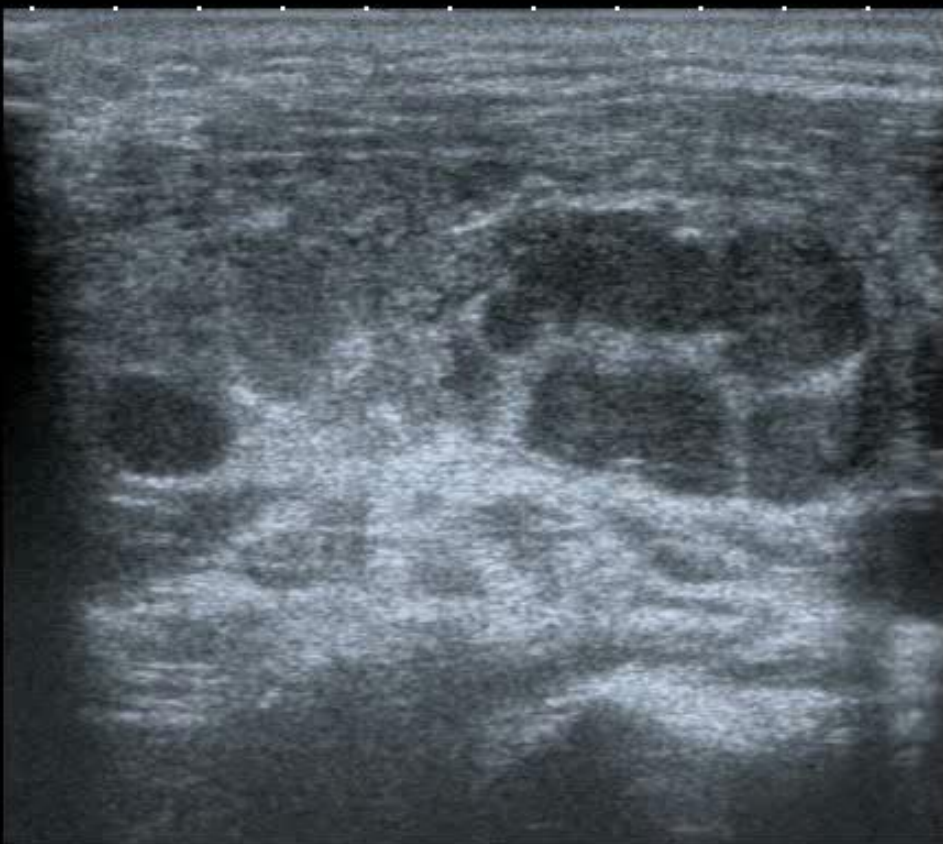
MI:1.6
2DG
80
DR
70

12L5
T9.0
27 fps





0 ◆ T



2 ◆

4 ◆

MI:1.6
2DG
80
DR
70

12L5
T9.0
27 fps



Fine Needle Aspiration.

- No aspiration technique.
- Spinal needle.
- Deep lesions.
- Haemorrhage.







0 ◆

1 ◆▶

2 ◆

3 ◆



T

MI:1.4
2DG
80
DR
65

14L7
diffT13.0

25 fps

IP4

HDD:63% Free



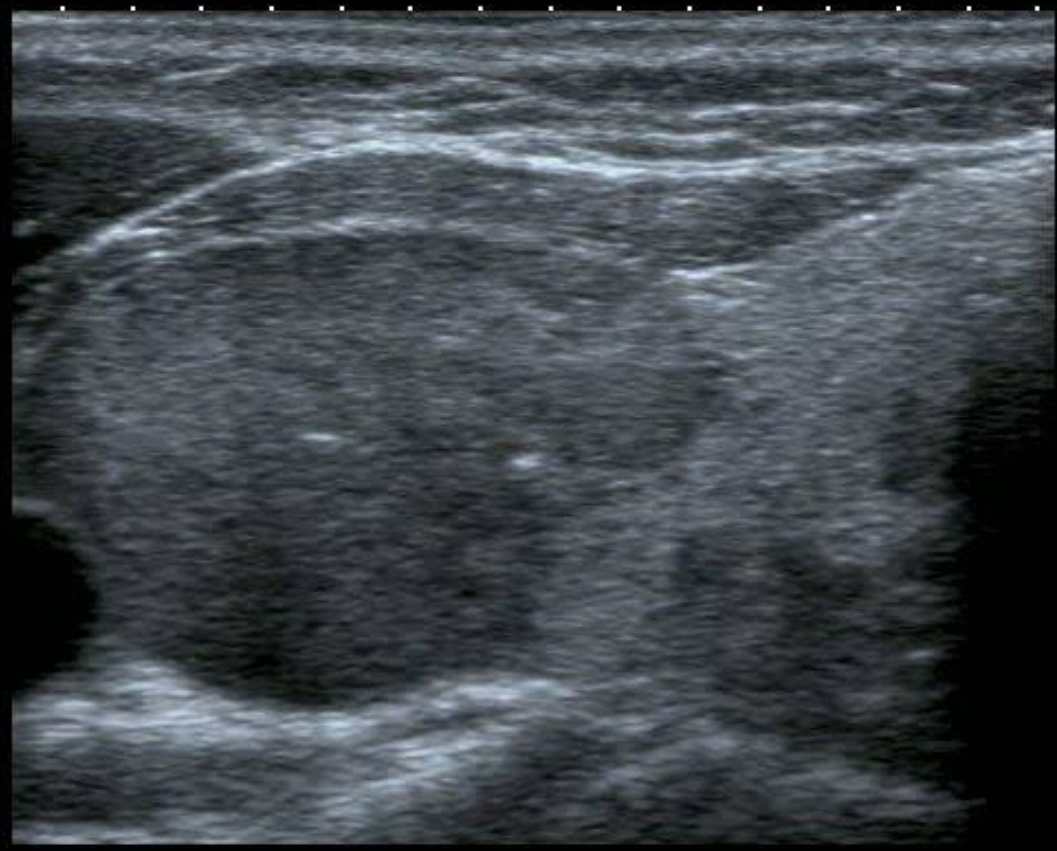


0 ◆

1 ◆▶

2 ◆

3 ◆



T

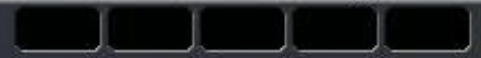
MI:1.4
2DG
80
DR
65

14L7
diffT13.0

25 fps

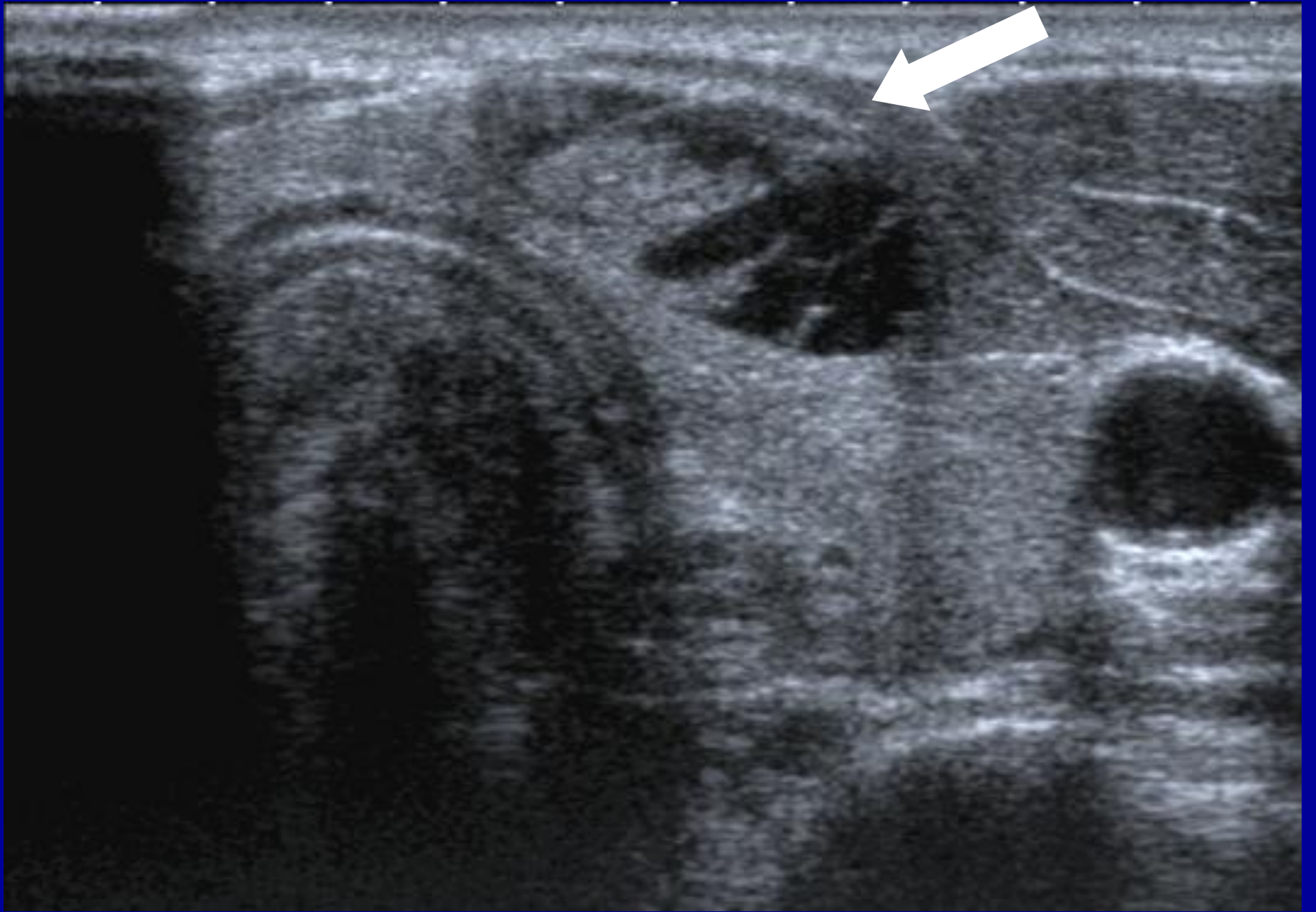
IP4

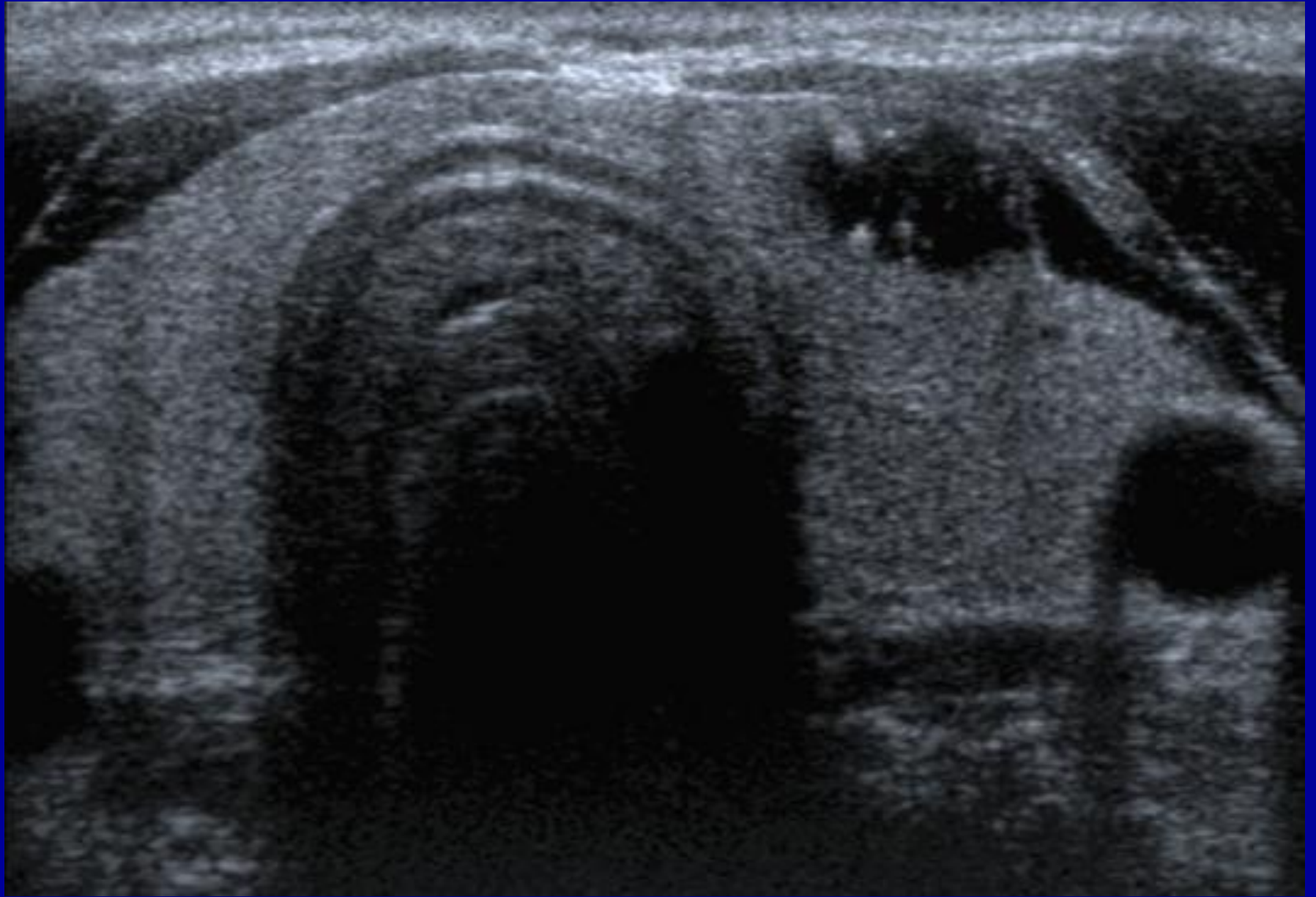
HDD:63% Free

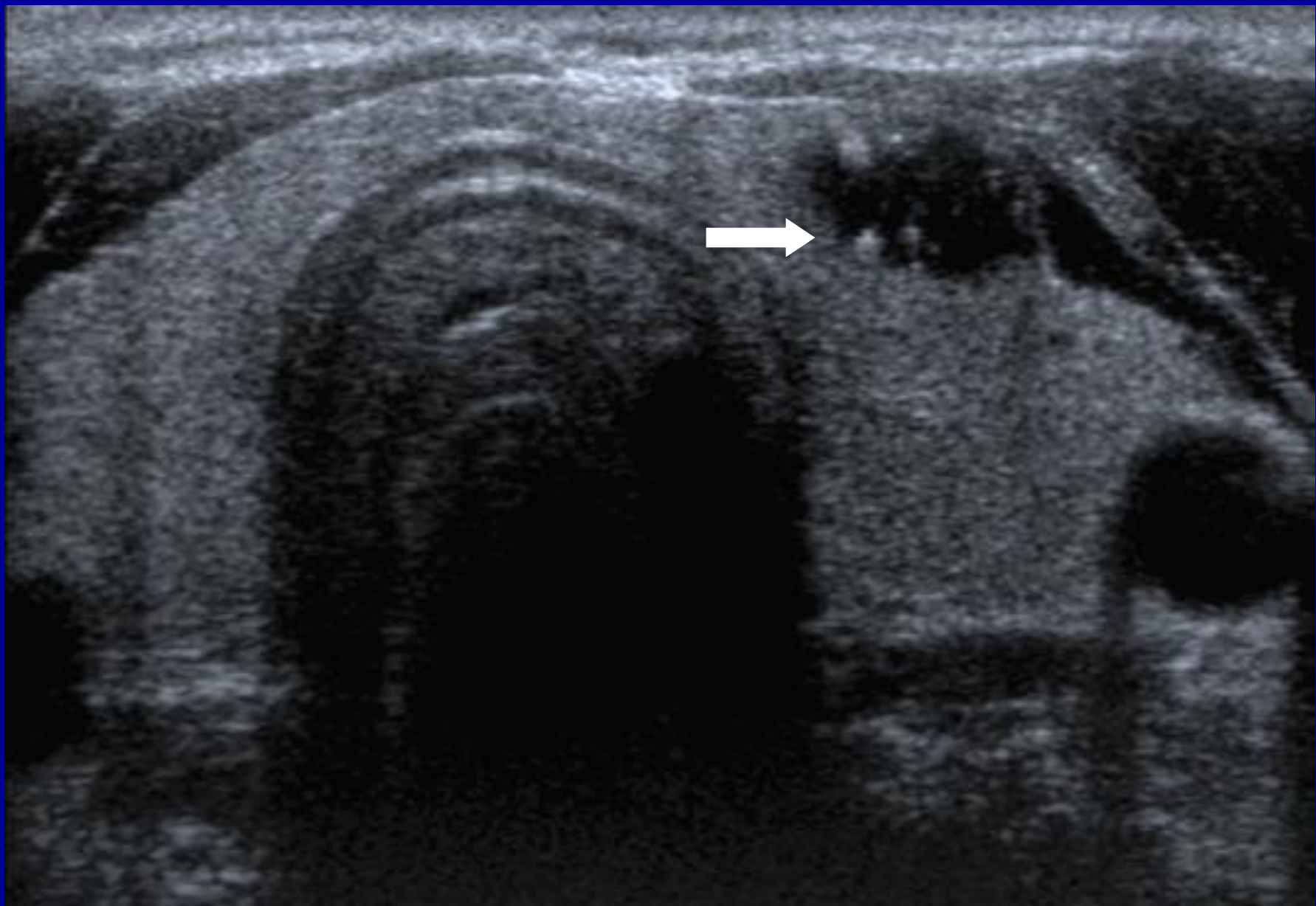


In practise?

- Knowledge
- Hand/eye coordination.
- Needle/probe.
- Needle/monitor.



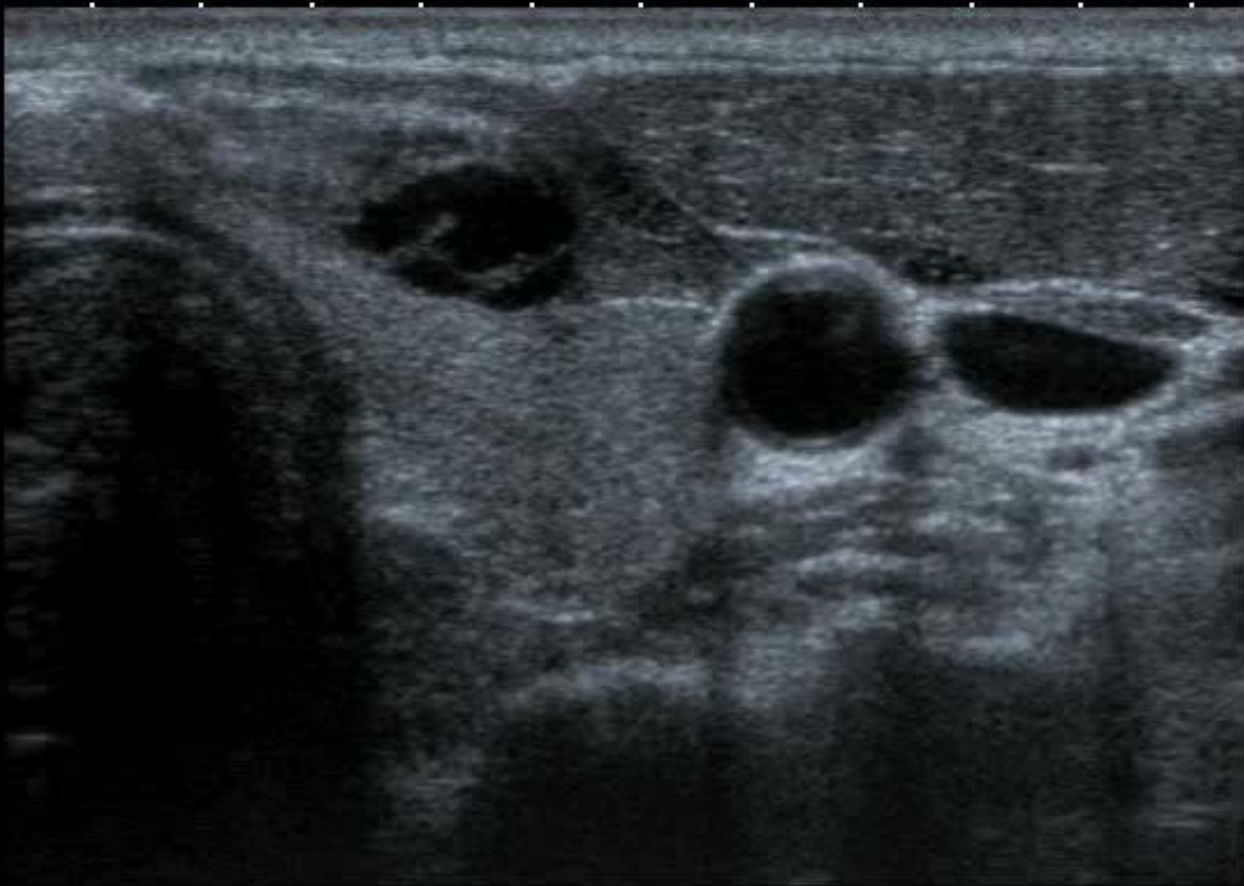




T
0
1
2
3
4

12L5
T9.0

33 fps



MI:1.6
2DG
93
DR
70

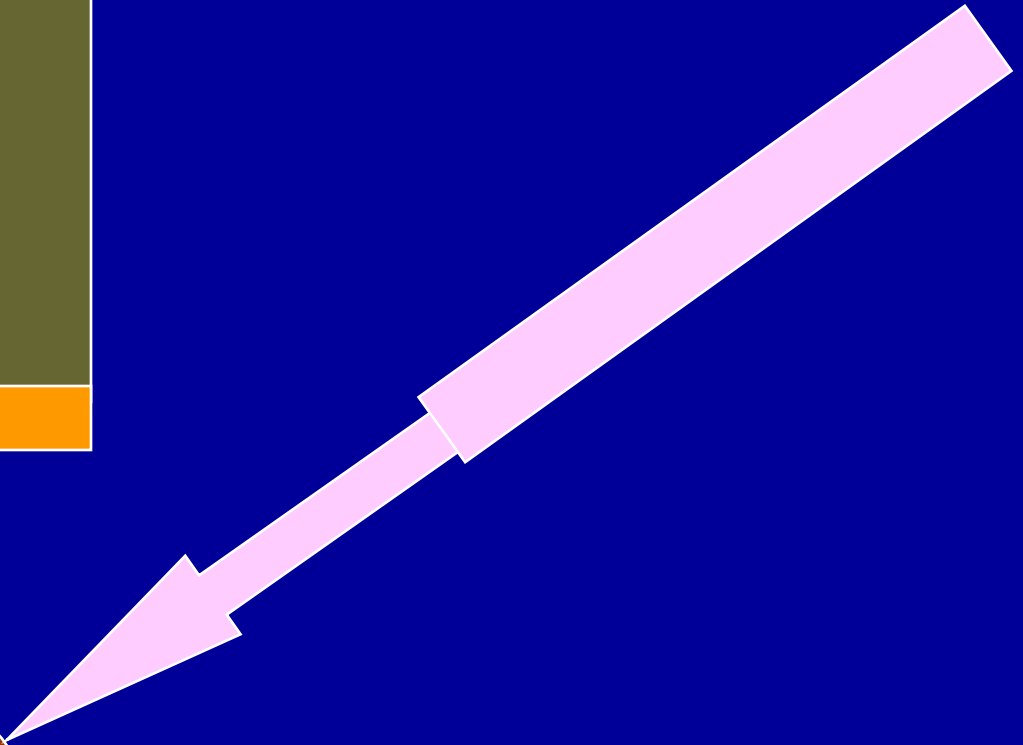
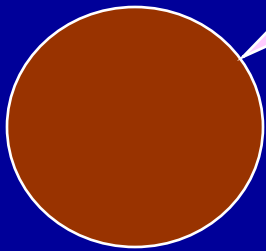


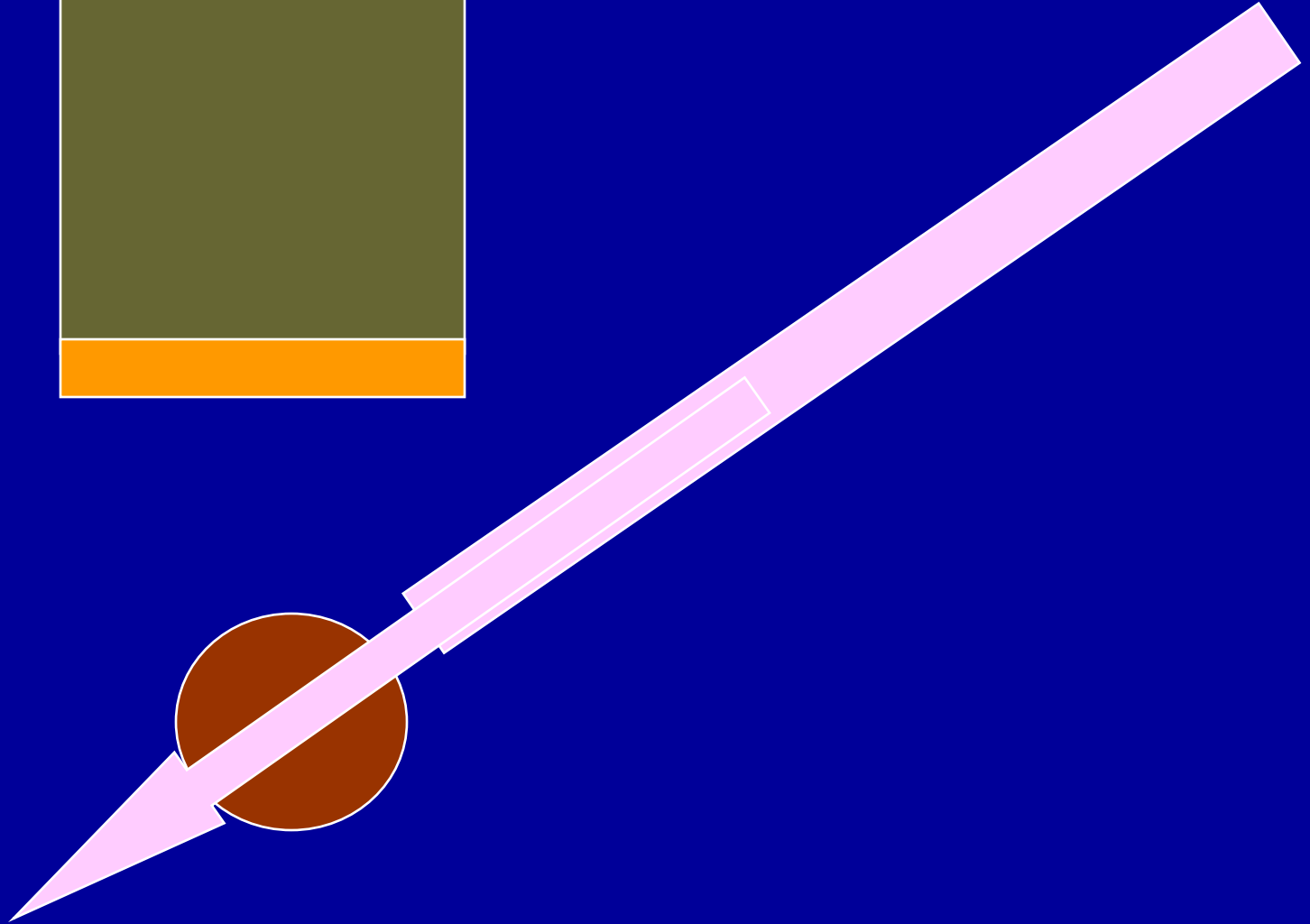


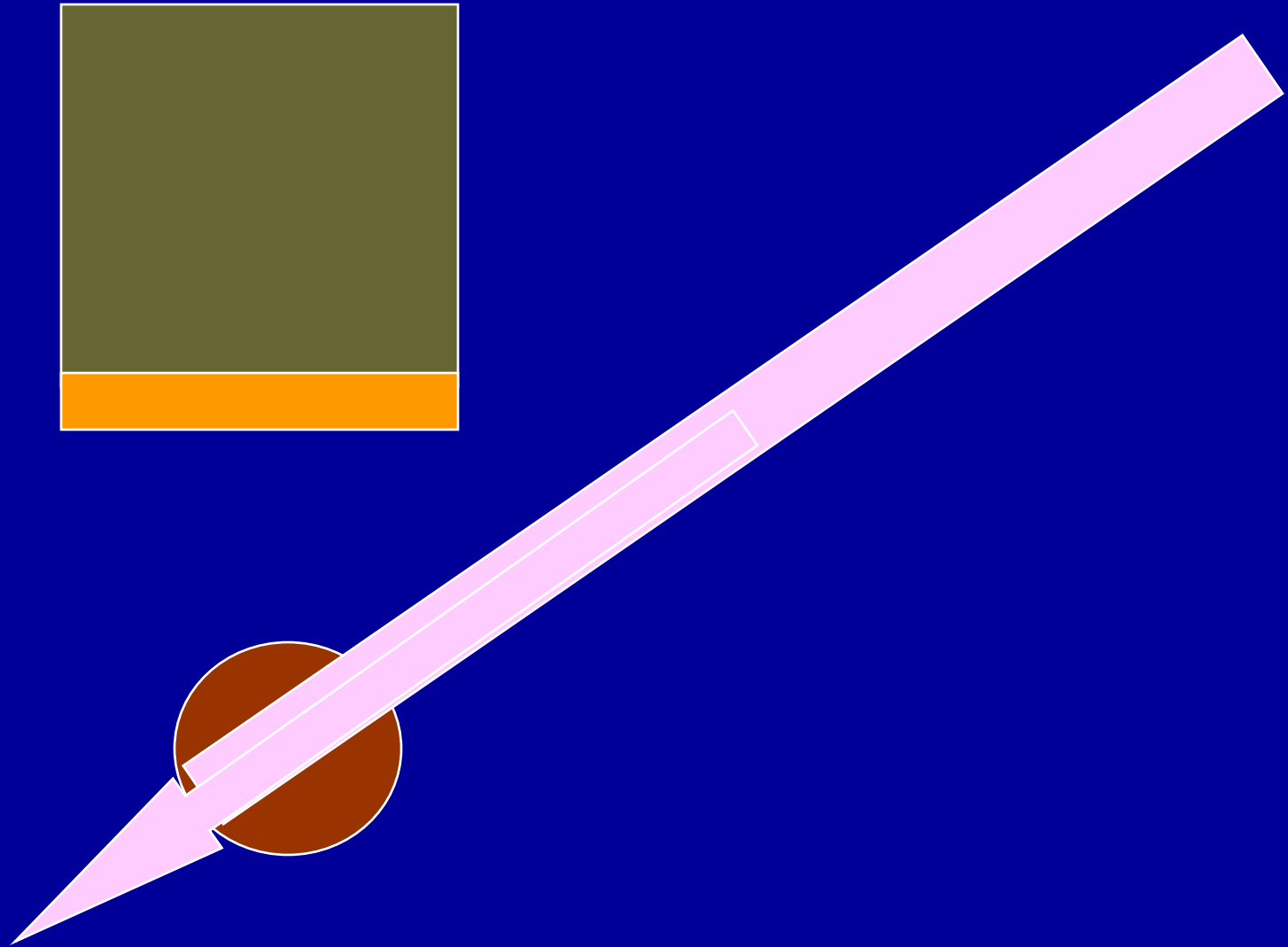
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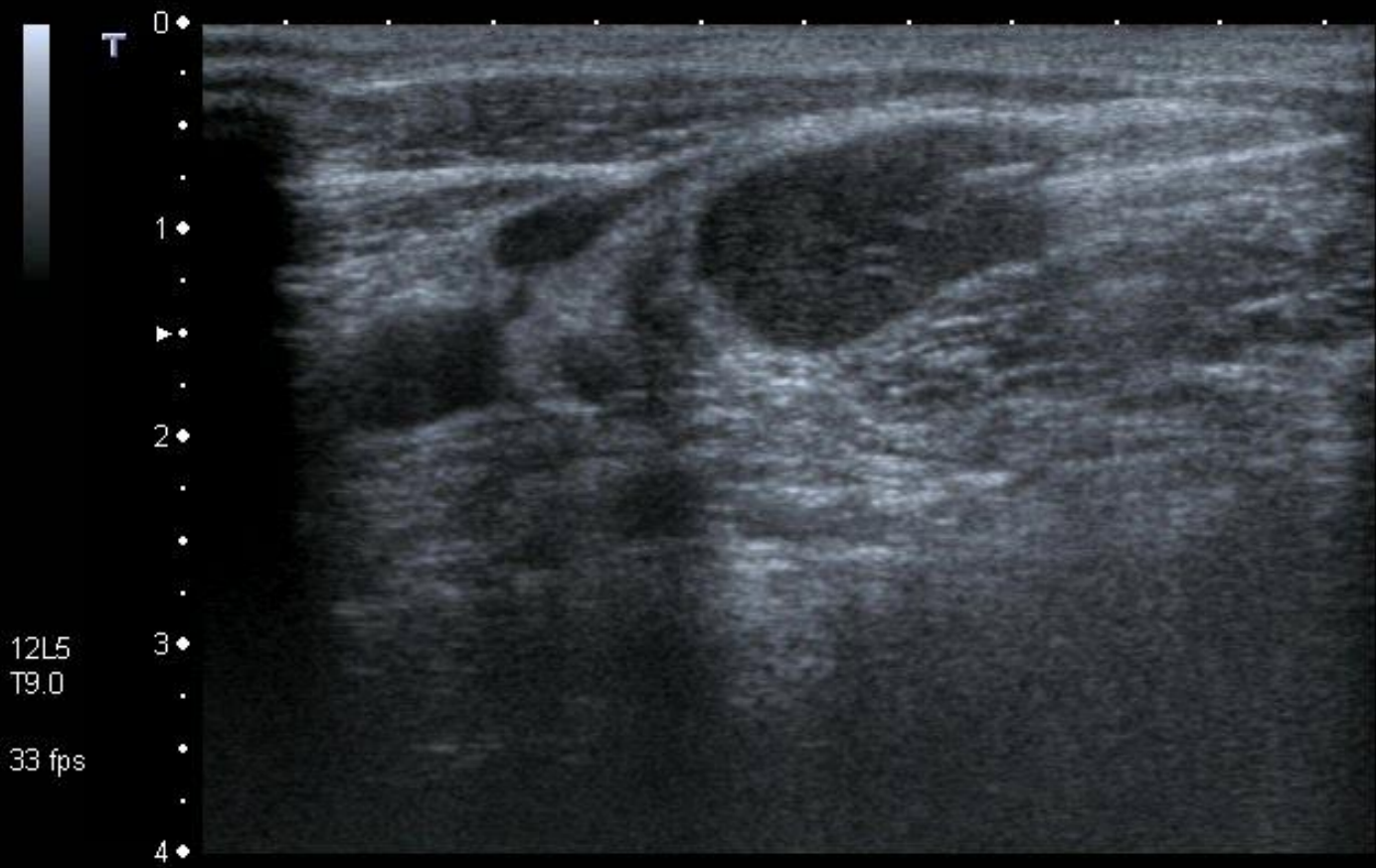
Core Biopsy.

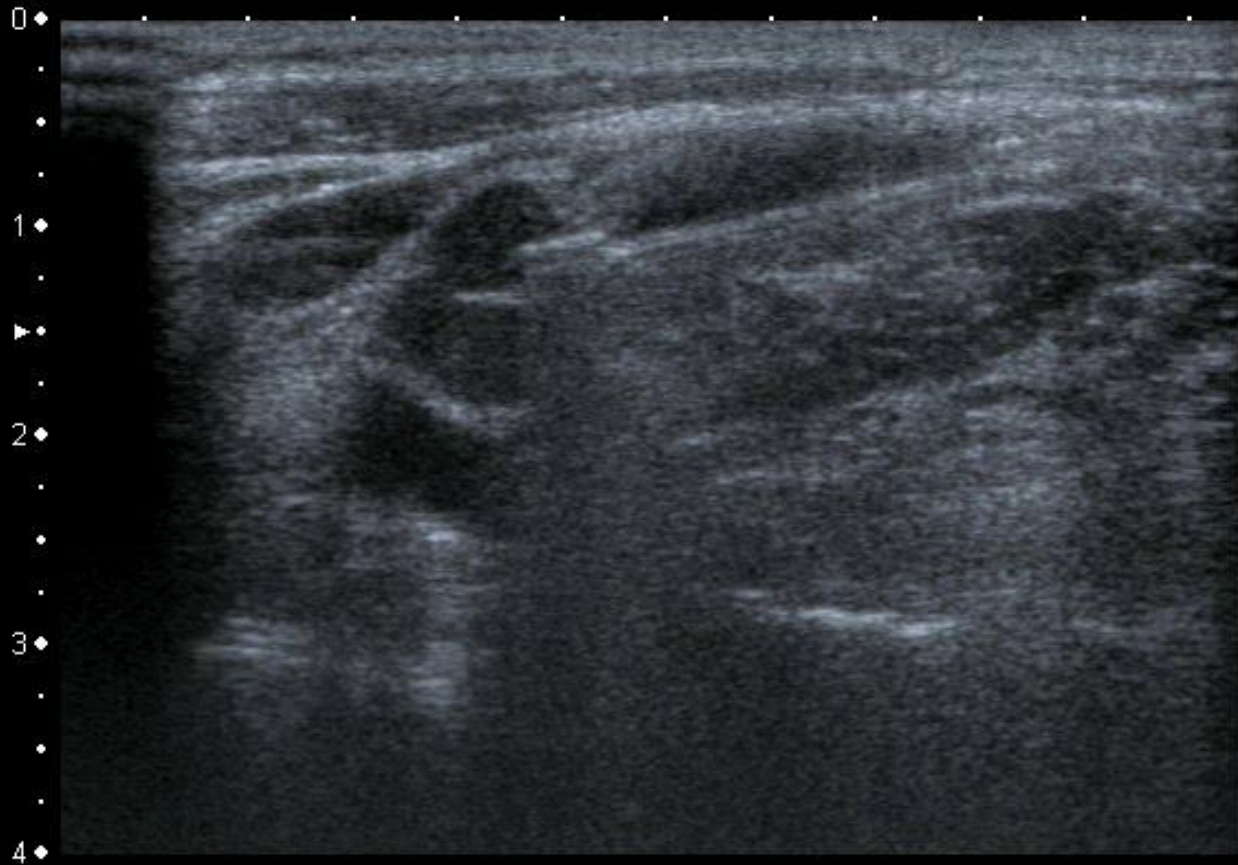
- Non Advancing needle.











0 ◆
.
1 ◆
▶
2 ◆
.
3 ◆
.
4 ◆

MI:1.6
2DG
80
DR
70

12L5
T9.0
33 fps

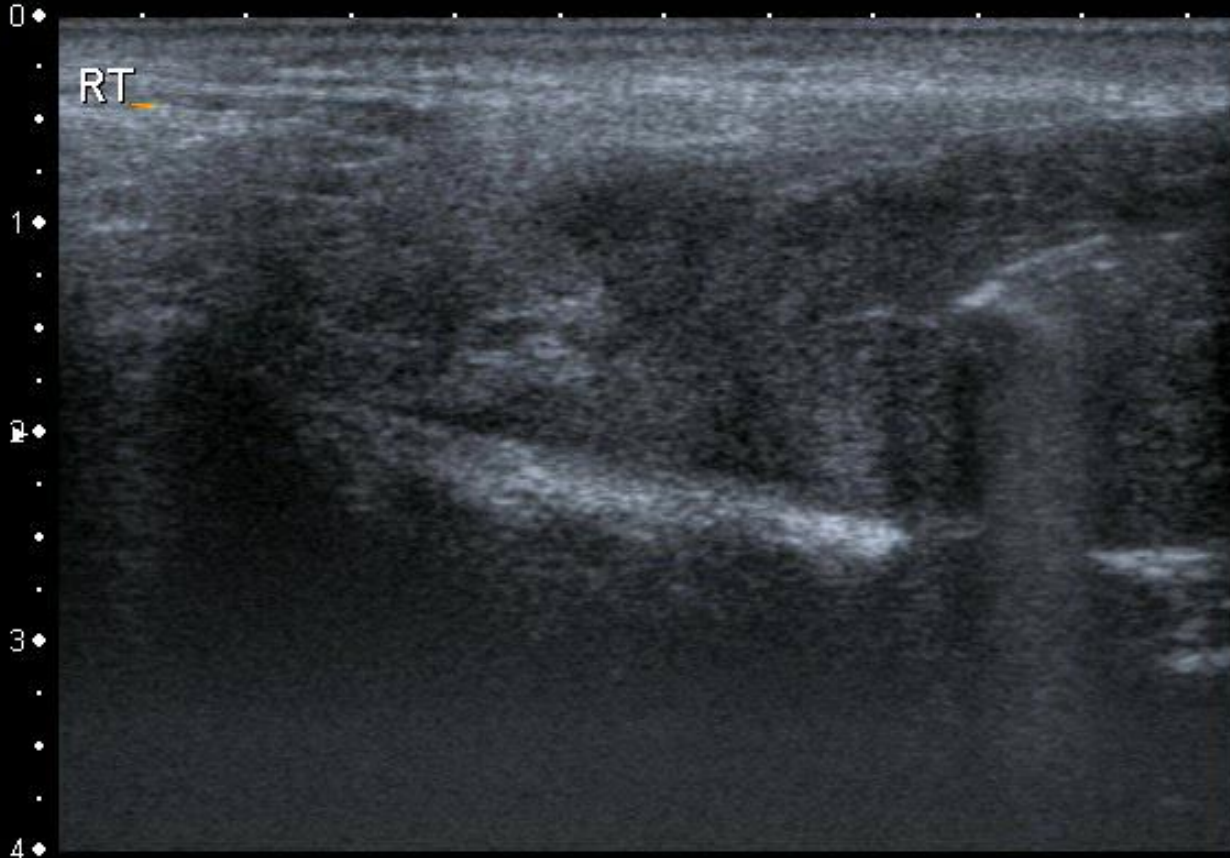






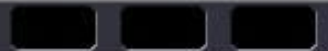
Positioning : see the gate.





MI:1.6
2DG
85
DR
70

12L5
T9.0
37 fps





MI:1.6
2DG
85
DR
70

12L5
T9.0
37 fps

0
1
2
3
4



Core Biopsy.

- Consent?
- Warfarin?
- Team talk.

Core Biopsy.

- Plan approach – **always** short axis.
- Anaesthesia under ultrasound control.
- Practice the click.
- Catch the needle ,see the gate.
- Flat surface – parallelism.
- Position the gate – click coming.
- Smooth and easy!



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