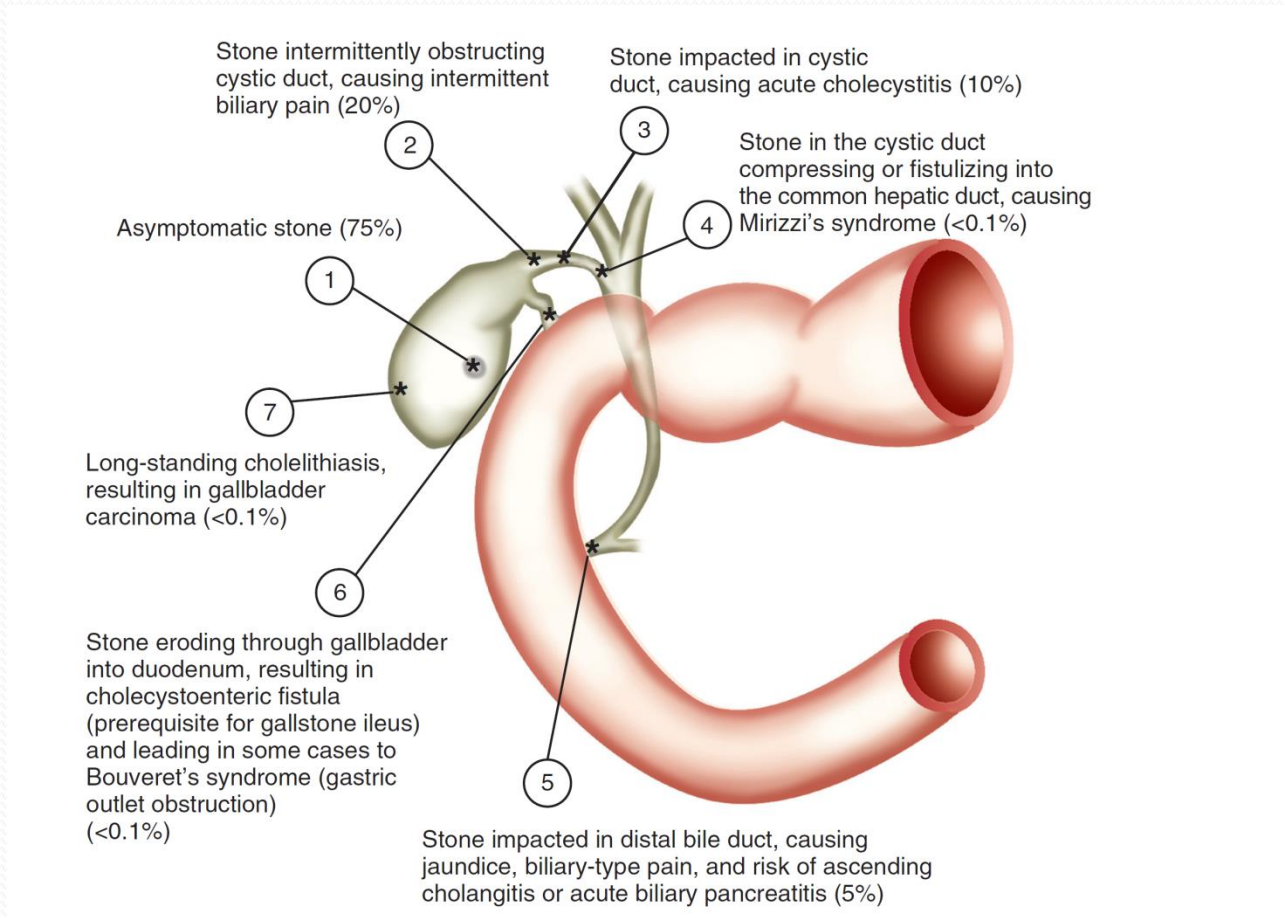


Diagnostic Value of EUS in CBD Stones

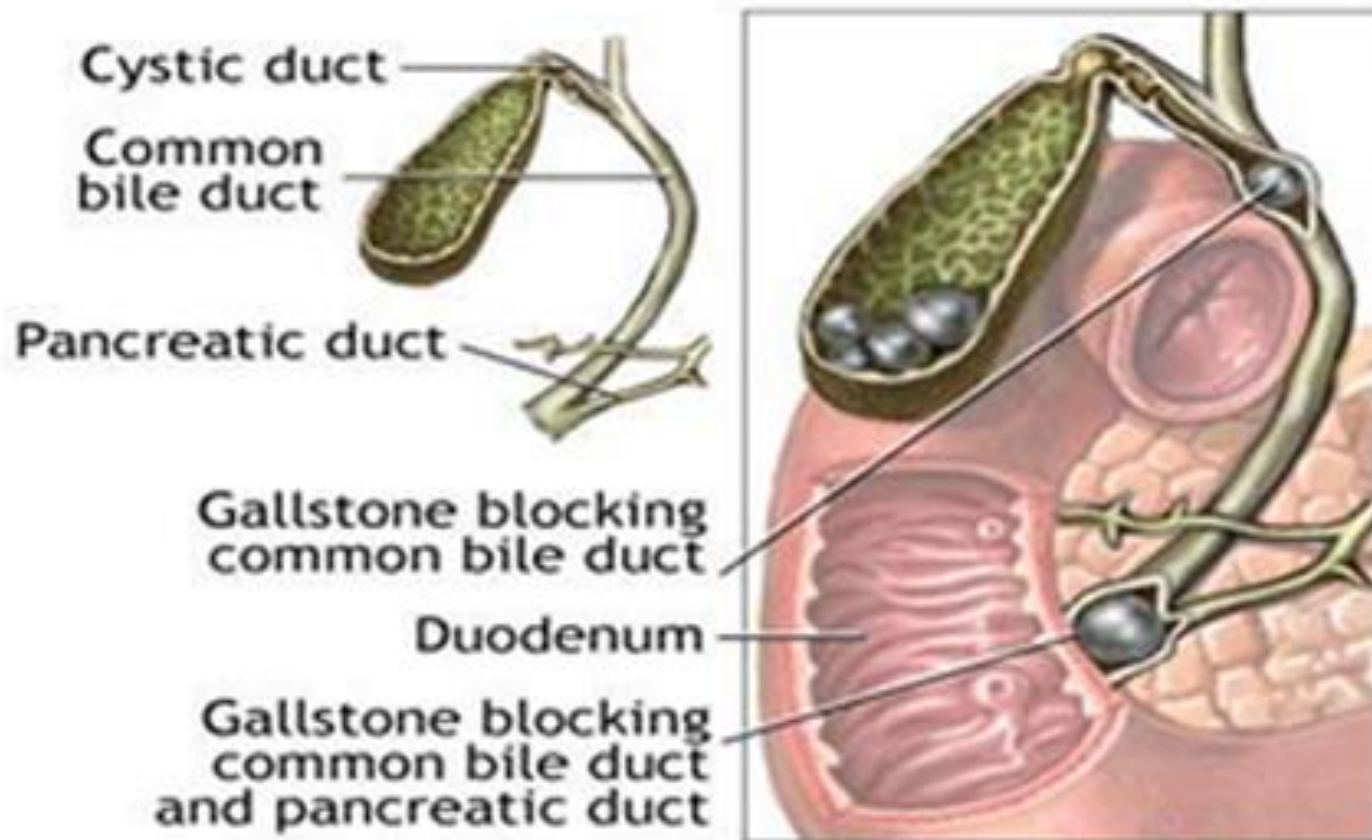
Dr. Lama Yassin Ghanimeh



Natural history of gallstone disease



CBD stones



Management

Classification

Probability of
biliary stones

Management

Treatment
Diagnosis

Classification

Predictors of choledocholithiasis

ASGE Guidelines

Very strong

- CBD stone on transabdominal US
- Clinical ascending cholangitis
- Bilirubin >4 mg/dL

Strong

- Dilated CBD on US (>6 mm with gallbladder in situ)
- Bilirubin level 1.8-4 mg/dL

Moderate

- Abnormal liver biochemical tests other than bilirubin
- Age older than 55 y
- Clinical gallstone pancreatitis

Presence of

- | | |
|-----------------------------|--------------|
| • any very strong predictor | High |
| • both strong predictor | High |
| • No predictors present | Low |
| • All other patients | Intermediate |

Management

Why??

- ERCP complication
- <67% == Therapeutic intervention

Patient of s

high probability
(>50%)

ERCP

Cholecystectomy

moderate
risk(10–50%)

ERCP

Cholecystectomy

cholecystectomy

low probability
(<10%)

cholecystectomy

EUS & MRCP

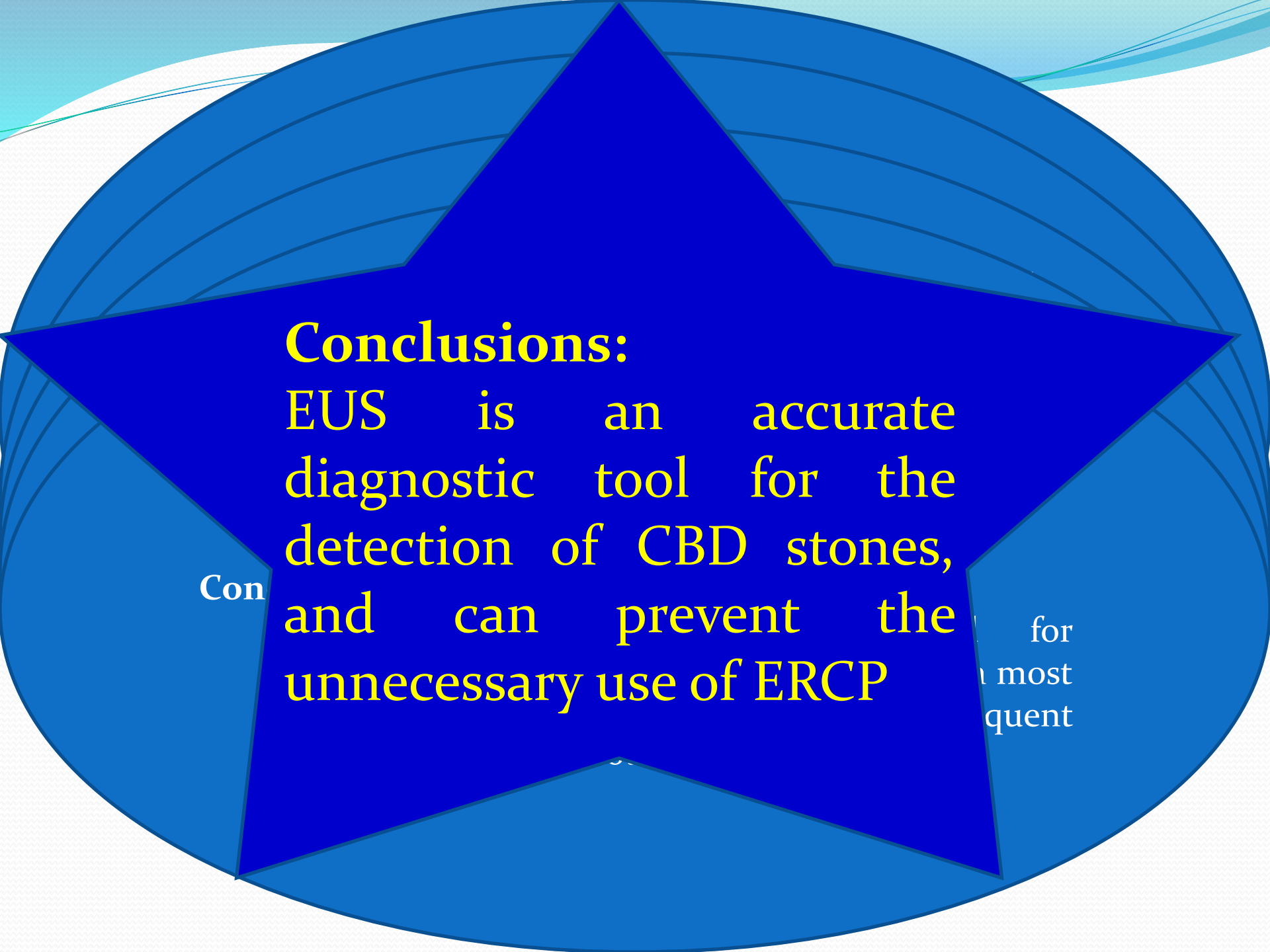
EUS

EUS

- Advantages :
 1. Fewer complications
 2. High sensitivity
 3. High specificity
- Disadvantages:
 1. Un available ???
 2. Depend on the skill and experience of the performer.

EUS in Diagnosis of CBD stones

Statistic	Value (%)	95% CI
Sensitivity	91.7	73.0–99.0
Specificity	97.6	91.6–99.7
Positive predictive value	91.7	73.0–99.0
Negative predictive value	97.6	91.6–99.7
Accuracy	96.3	90.7–99.0



Conclusions:

EUS is an accurate
diagnostic tool for the
detection of CBD stones,
and can prevent the
unnecessary use of ERCP

Con

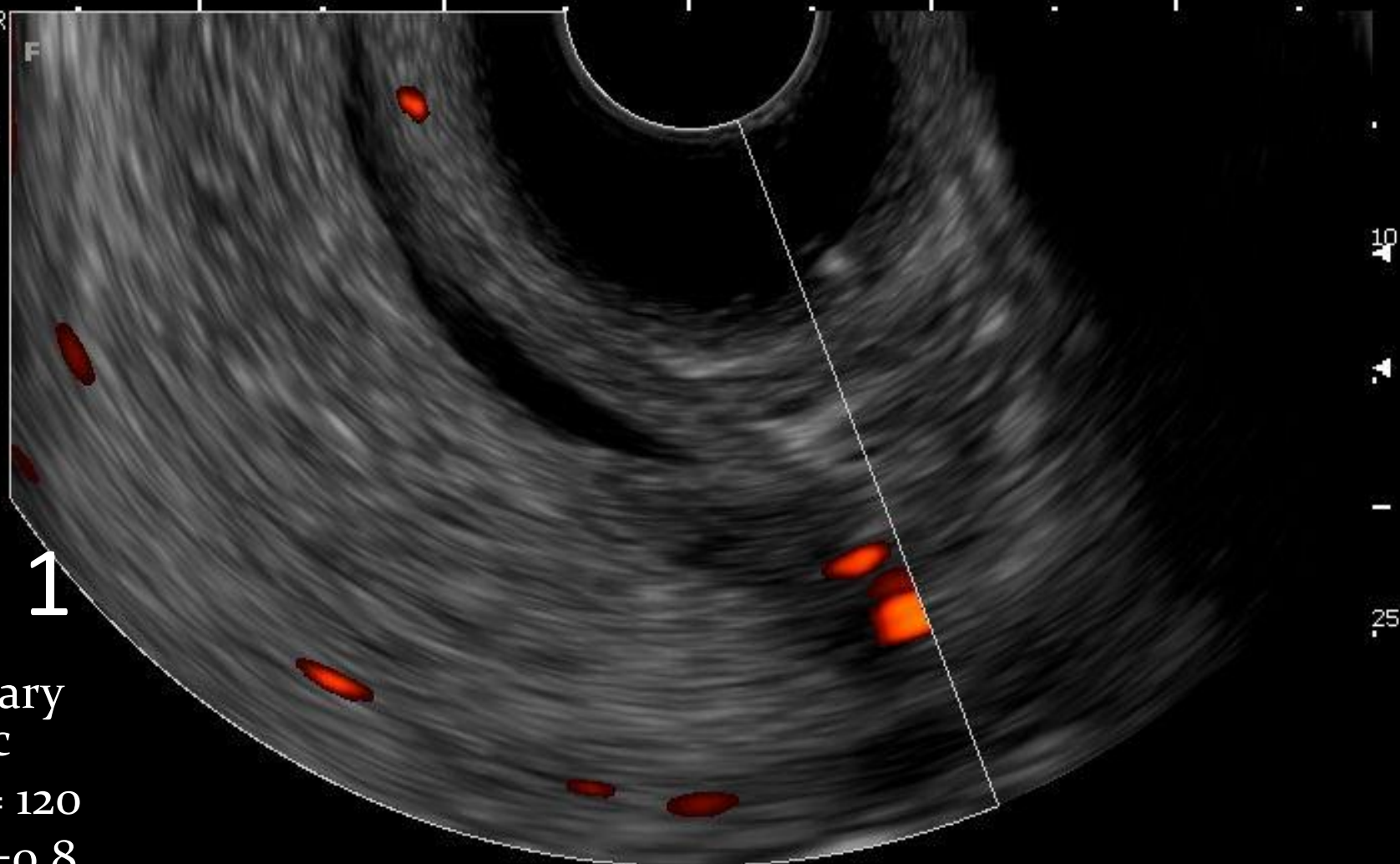
for
most
quent

MRCP vs EUS

- Advantages
 - Non invasive
 - High sensitivity
 - High specificity.....almost like EUS
- Disadvantages
 - Unavailable
 - EUS >>>MRCP
 - MRCP sensitivity >>>>small stones
 - EUS sensitivity high.

Some cases from Alasad hospital

7.2
EG-580UR
MI:0.5
TIs:0.0
AP:100%
D:15mm



Case 1

- Billiary colic
- Alt= 120
- TB =0.8
- CBD >>N

F 32

20180927081440884aeaf... EUS-1/General

AL-ASSAD HOSPITAL

27/09/2018

09:11:15

7.2

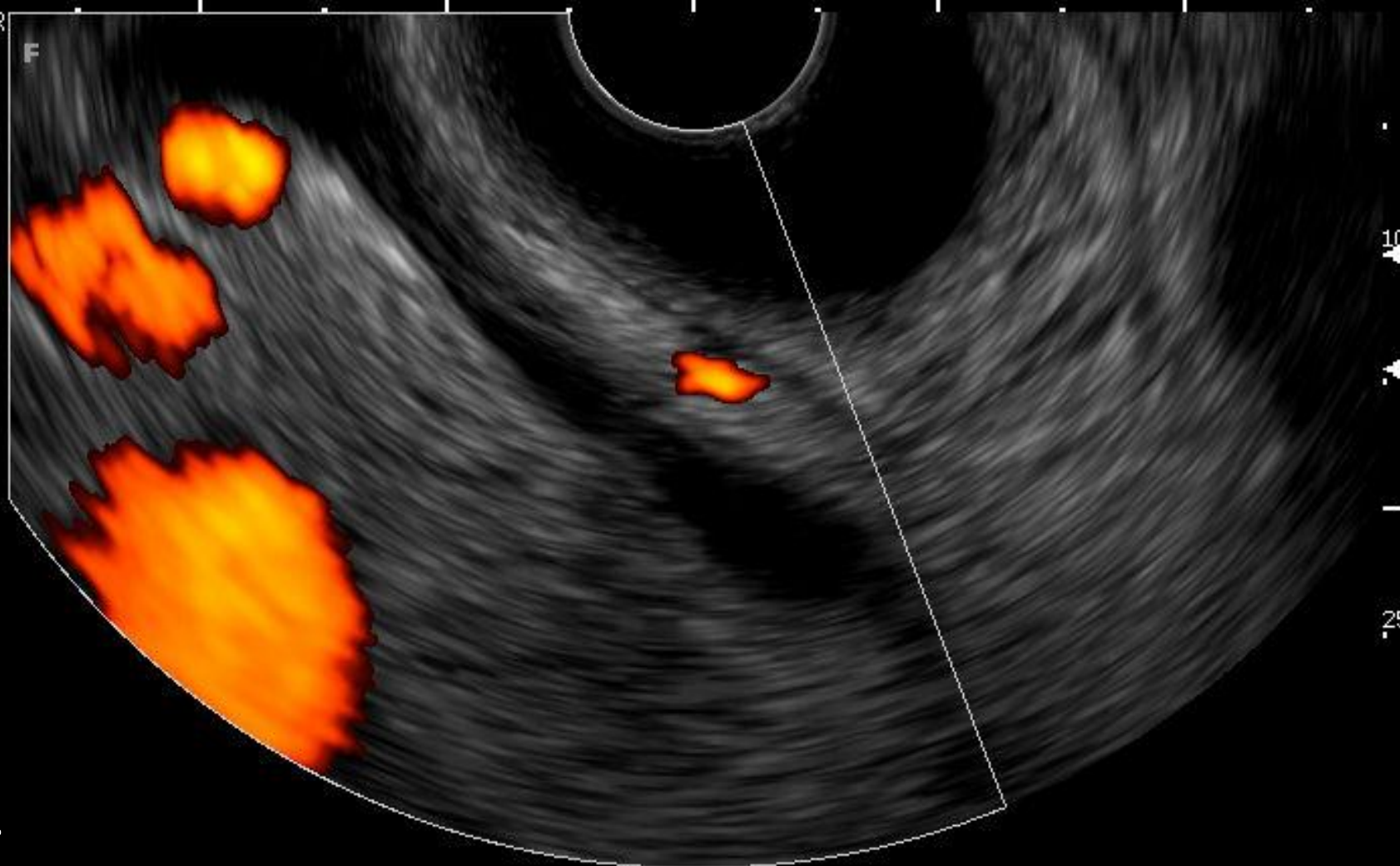
EG-580UR

MI:0.5

TIs:0.0

AP:100%

D:15mm



Case 1

C 4.0M G:50 WF:1 P:0 M:PD1 FC:4 CB:5

B FB:7.5M G:46 DR:55 1540m/s E:2 P:2 M:G7 SR:2 S:2

FR:11.4Hz

46/ 50

F 32

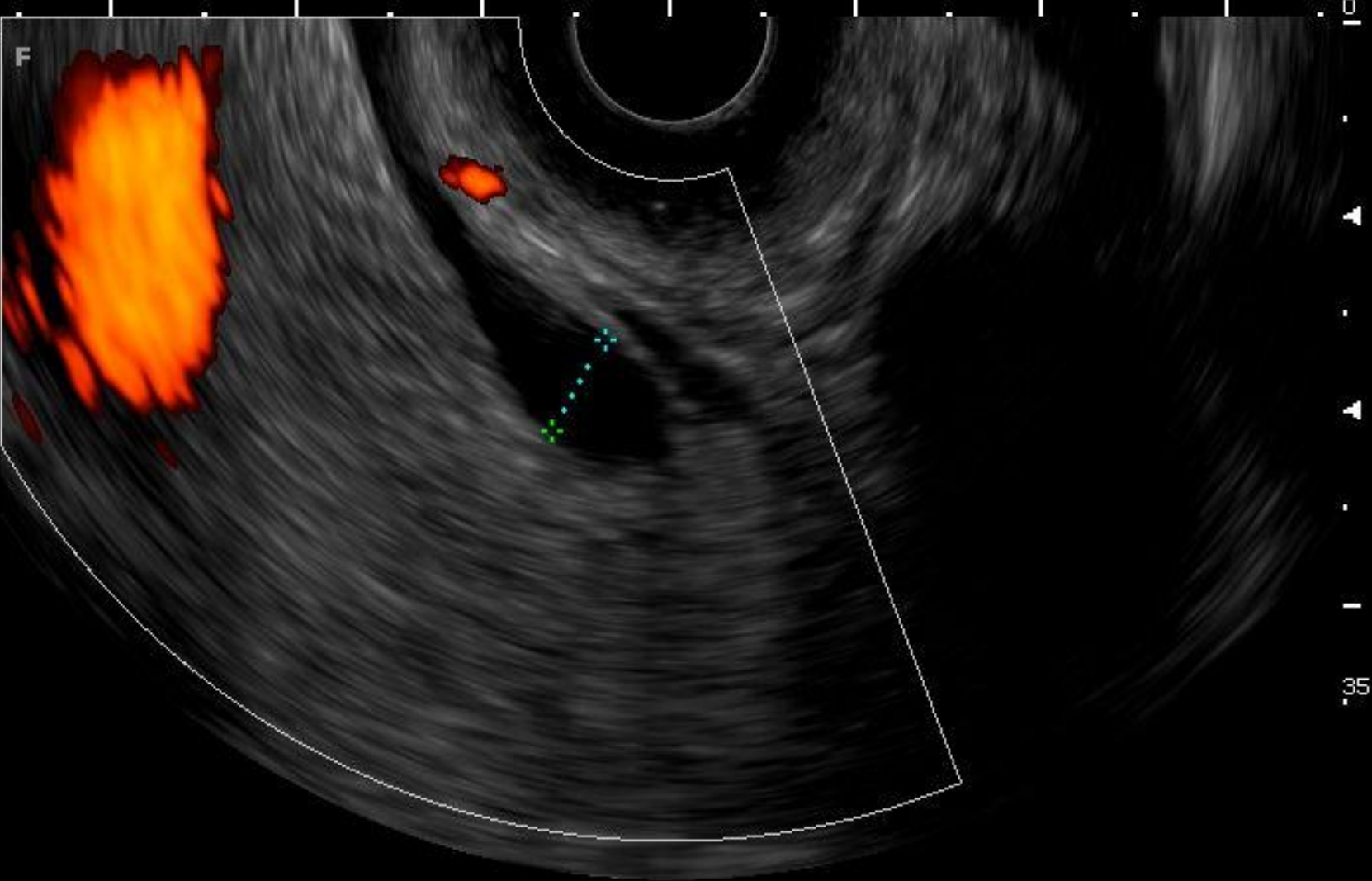
20180927081440884aeaf*** EUS-1/General

AL-ASSAD HOSPITAL

27/09/2018

09:10:21

7.2
EG-580UR
MI:0.5
TIs:0.0
AP:100%
D:20mm



Case 1

Distance

1:

5.49 mm

C 4.0M G:50 WF:1 P:0 M:PD1 FC:4 CB:5

B FB:7.5M G:46 DR:55 1540m/s E:2 P:2 M:G7 SR:2 S:2

FR:11.4Hz

18/ 18

F 50 20180927093920884aeaf*** EUS-1/General

+ 7.2

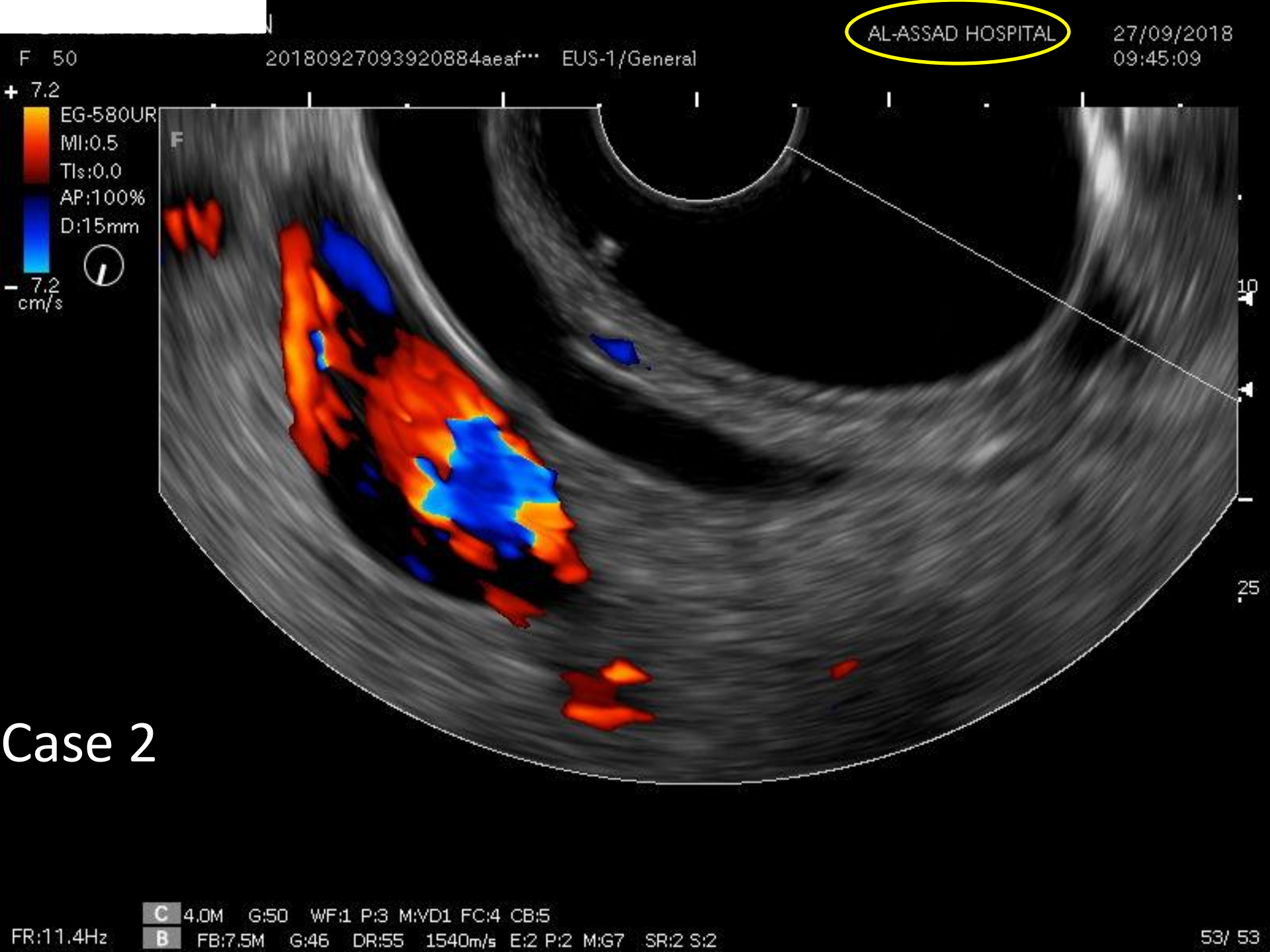
EG-580UR
MI:0.6
TI:0.0
AP:100%
D:40mm- 7.2
cm/s

Case 2

FR:10.9Hz

C	4.0M	G:50	WF:1	P:3	M:VD1	FC:4	CB:5
B	FB:7.5M	G:46	DR:55	1540m/s	E:2	P:2	M:G7
					SR:2	S:2	

53/ 53



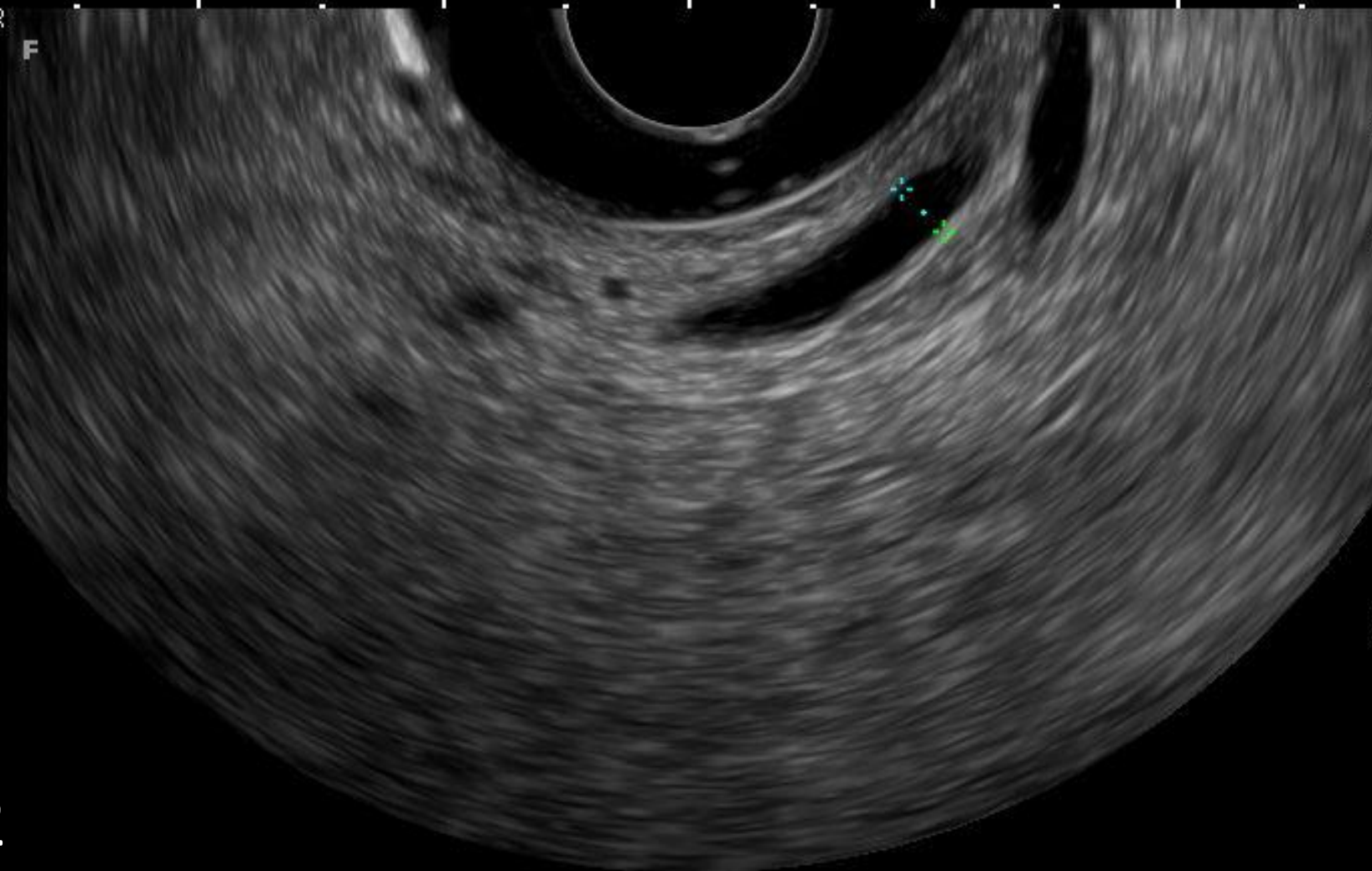
F 50

20180927093920884aeaf... EUS-1/General

AL-ASSAD HOSPITAL

27/09/2018
09:48:17

EG-580UR
MI:0.5
TIs:0.1
AP:100%
D:15mm



Case 2

Distance

1: 2.39 mm

FR:30.0Hz B FB:7.5M G:46 DR:55 1540m/s E:2 P:2 M:G7 SR:2 S:2

131/131

Depth
10:00:00
10:00:00



F 65

20180930114037884aeaf... EUS-1/General

AL-ASSAD HOSPITAL

30/09/2018

11:44:00

EG-580UR

MI:0.5

TI:0.1

AP:100%

D:30mm



Case 3

Distance

1: 9.28 mm

FR:25.9Hz B FB:7.5M G:46 DR:55 1540m/s E:2 P:2 M:G7 SR:2 S:2

97/116

F 65

20180930114037884aeaf... EUS-1/General

AL-ASSAD HOSPITAL

30/09/2018
11:45:01

EG-580UR

MI:0.5

TI:0.1

AP:100%

D:15mm



Case 3

F 65

20180930114037884aeaf... EUS-1/General

AL-ASSAD HOSPITAL

30/09/2018
11:45:39

EG-580UR

MI:0.5

TI:0.1

AP:100%

D:15mm



Case 3

F 65

20180930114037884aeaf... EUS-1/General

AL-ASSAD HOSPITAL

30/09/2018
11:48:52

EG-580UR

MI:0.5

TIs:0.1

AP:100%

D:20mm



Case 3



M 68

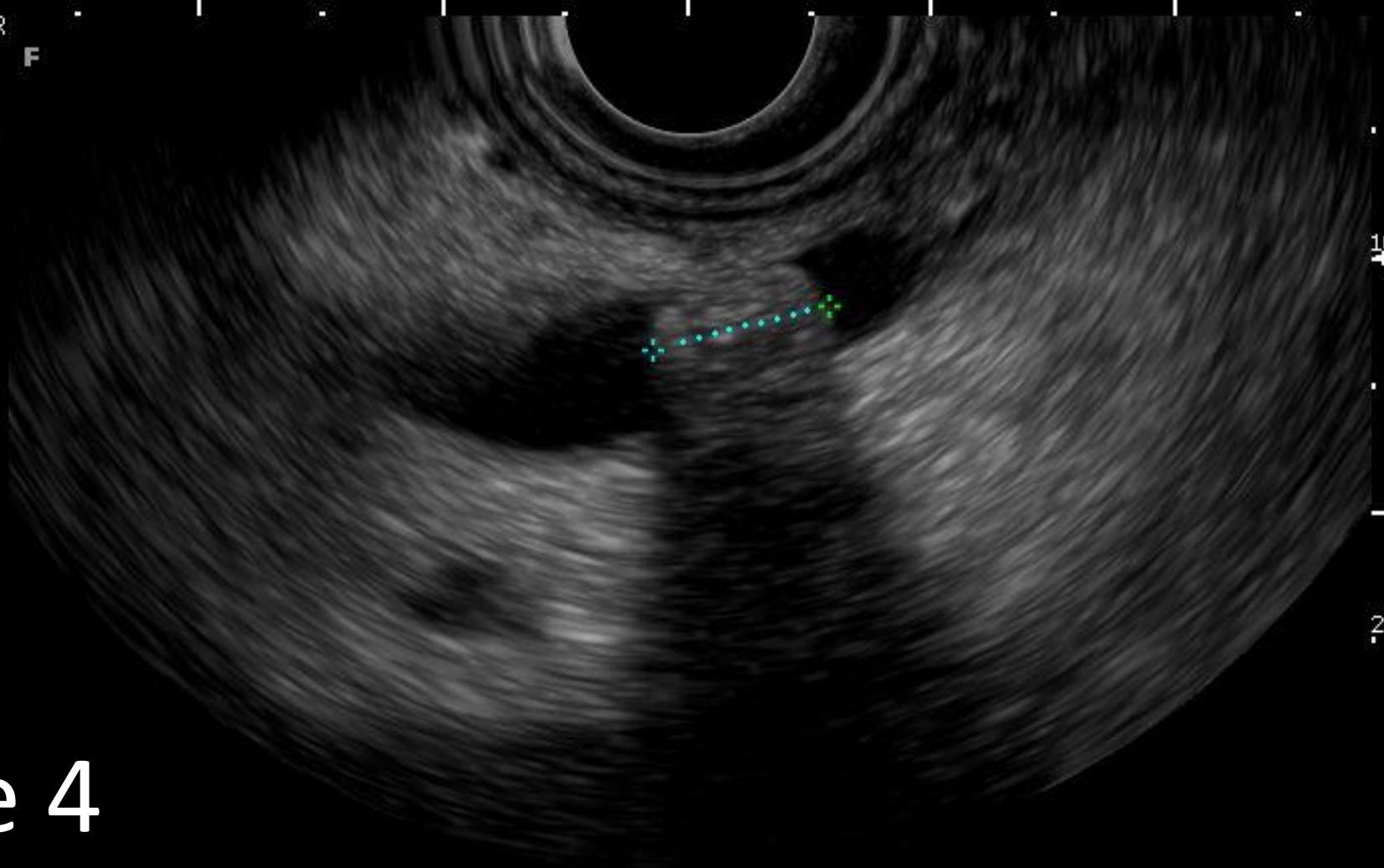
20180903092930884aeaf*** EUS-1/General

AL-ASSAD HOSPITAL

03/09/2018
09:35:45

EG-580UR
MI:0.5
TIs:0.1
AP:100%
D:15mm

F



10
25

Case 4

Distance
1: 7.45 mm

M 68

20180903092930884aeaf... EUS-1/General

AL-ASSAD HOSPITAL

03/09/2018

09:39:12

EG-580UR

MI:0.5

TI:0.1

AP:100%

D:30mm



Case 4

M 68

20180903092930884aeaf... EUS-1/General

AL-ASSAD HOSPITAL

03/09/2018

09:39:12

EG-580UR

MI:0.5

TI:0.1

AP:100%

D:30mm



Case 4

Distance

1: 7.27 mm

FR:25.9Hz B FB:7.5M G:46 DR:55 1540m/s E:2 P:2 M:G7 SR:2 S:2

164/164

M 63

20180805090449884aeaf*** EUS-1/General

AL-ASSAD HOSPITAL

05/08/2018

09:17:06

EG-580UR

MI:0.5

TI:0.1

AP:100%

D:20mm



Case 5

M 63

20180805090449884aeaf... EUS-1/General

AL-ASSAD HOSPITAL

05/08/2018

09:17:55

EG-580UR

MI:0.5

TI:0.1

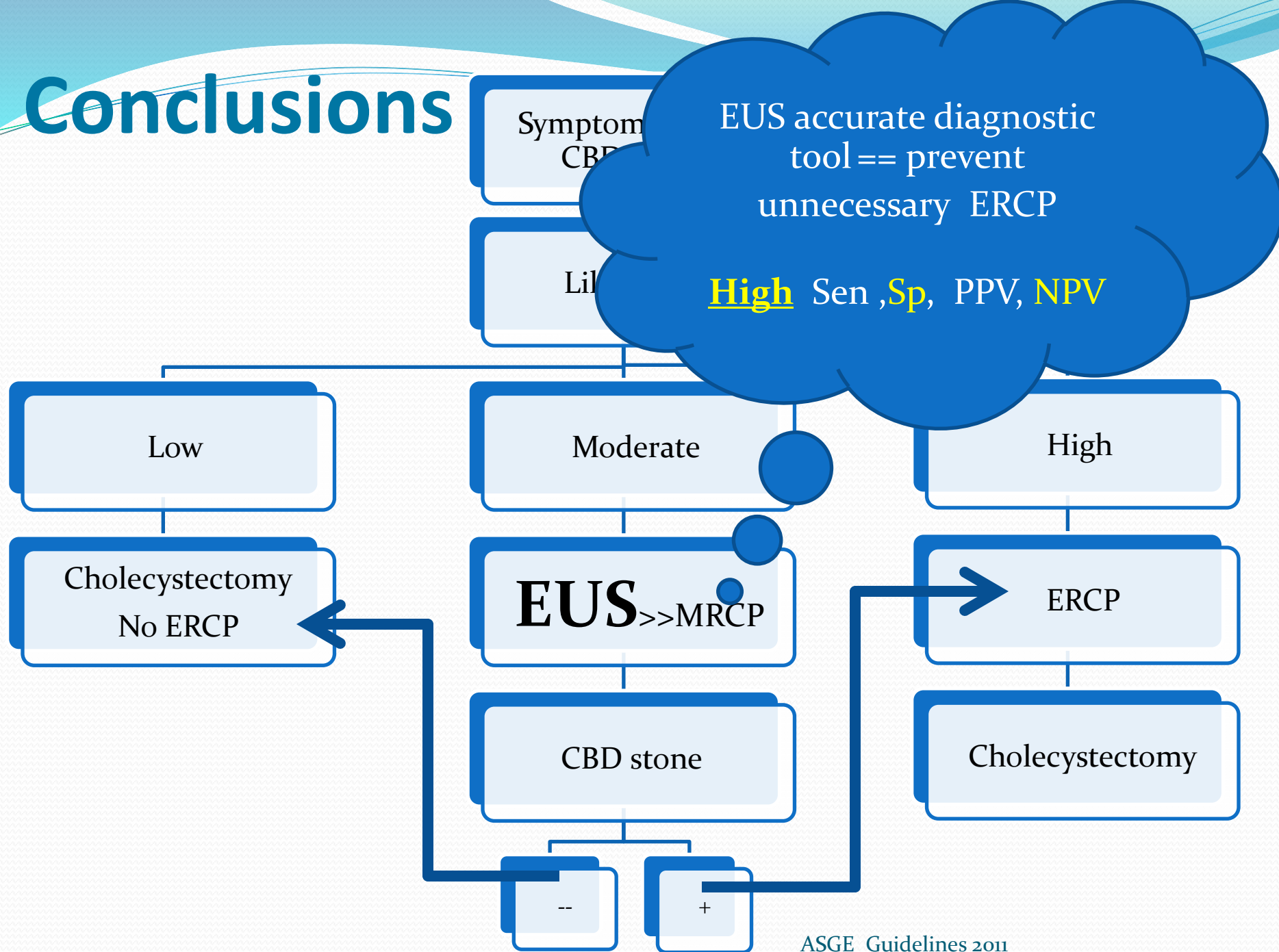
AP:100%

D:20mm



Case 5

Conclusions



Thank you for your listening

