

Workflow Guide

# 5D Follicle

Produced by International Clinical Manager Team

# INDEX

1. Acquire 3D volume data
2. Operate 5D Follicle
- 3-1. Measure by 'Auto'
- 3-2. Measure by 'Manual'
4. Edit the detection result
5. Assign measured value

# Acquire 3D volume data

01

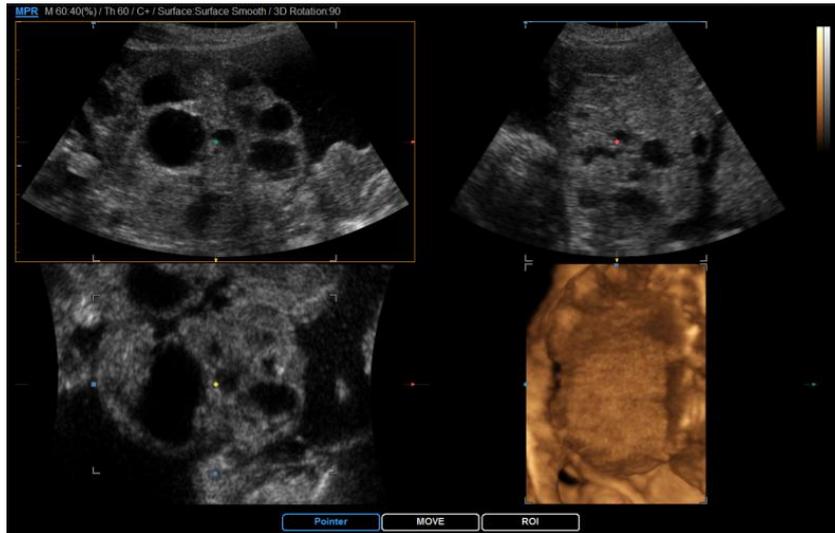
02

03-1

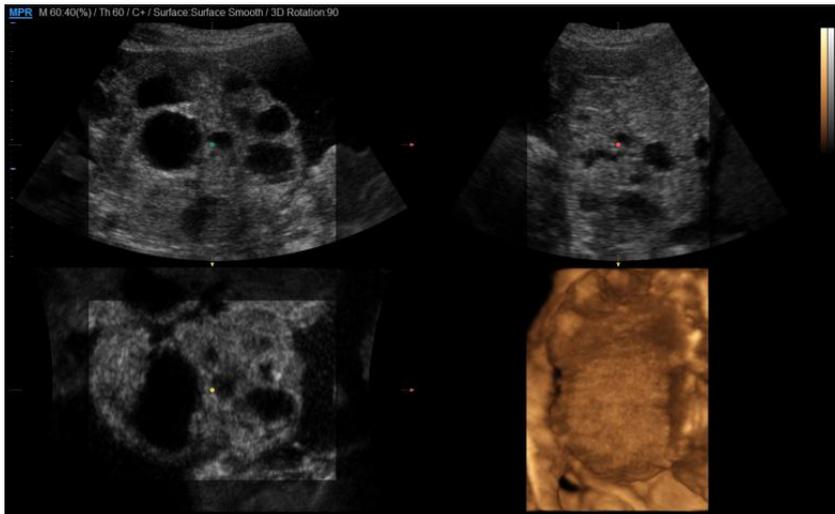
03-2

04

05



- ① Acquire 3D volume data of the ovary



- ② Adjust the ROI to specify the area where you want to detect by using trackball

# Operate the 5D Follicle

01

02

03-1

03-2

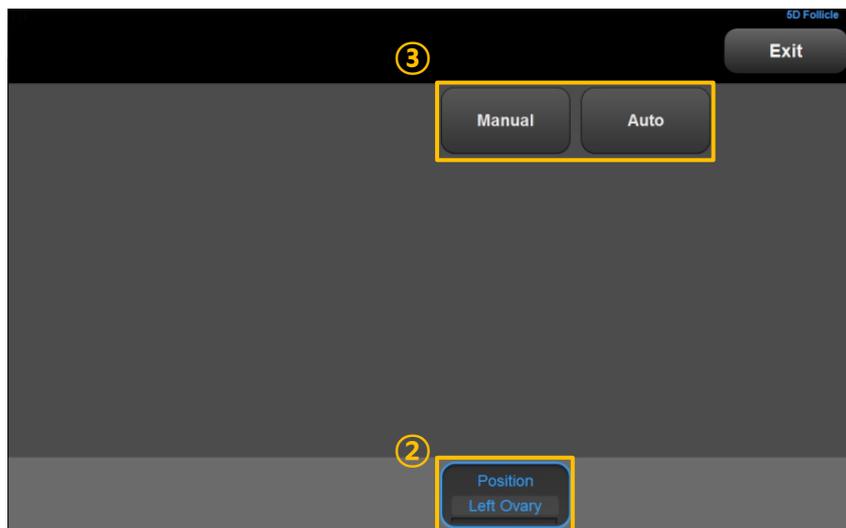
04

05



[Touch Screen]

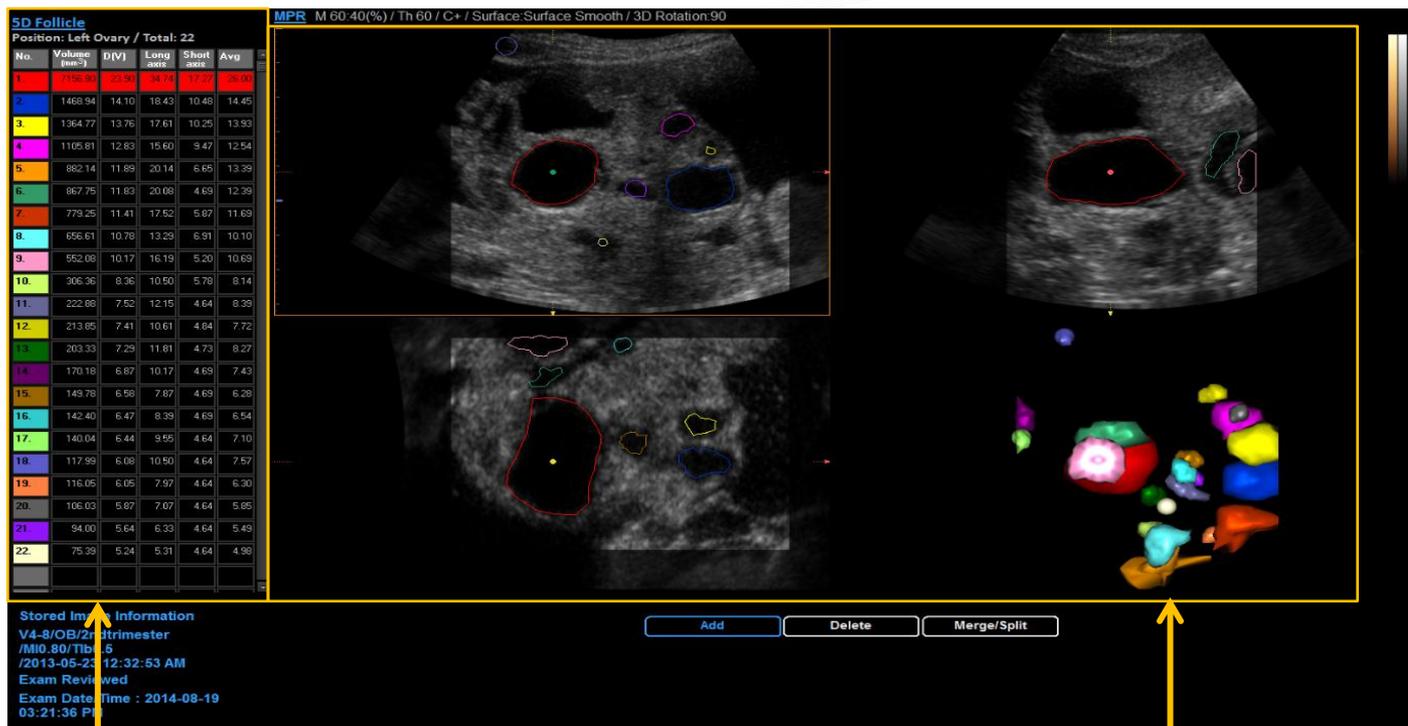
- ① Tap the '5D Follicle' button on the touch screen



[Touch Screen]

- ② Specify the position of scanning (Left Ovary / Right Ovary)
- ③ Select a detection method  
**Auto** : All detectable follicles are measured automatically  
**Manual** : The selected follicle by user is measured one by one

# Composition



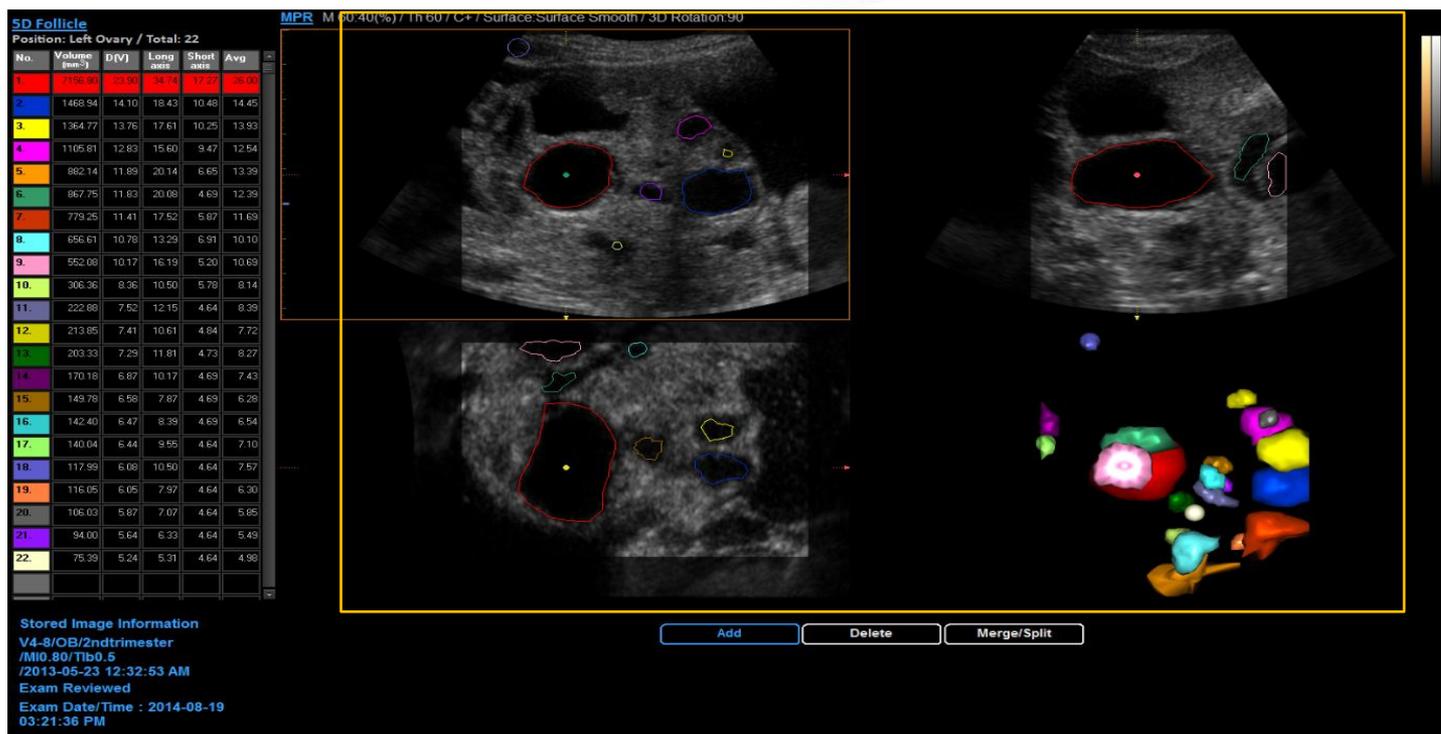
## Chart of the calculated parameters.

- **Volume**  
: Follicle volume of a perfect sphere
- **D[V]**  
: Follicle diameter of a perfect sphere
- **Long/Short axis**  
: Diameters of an ellipsoid model
- **Avg**  
: Average diameter of the long and short axis

## Rendered image of the detected follicle.

The color of the each follicles match to those on the left chart.

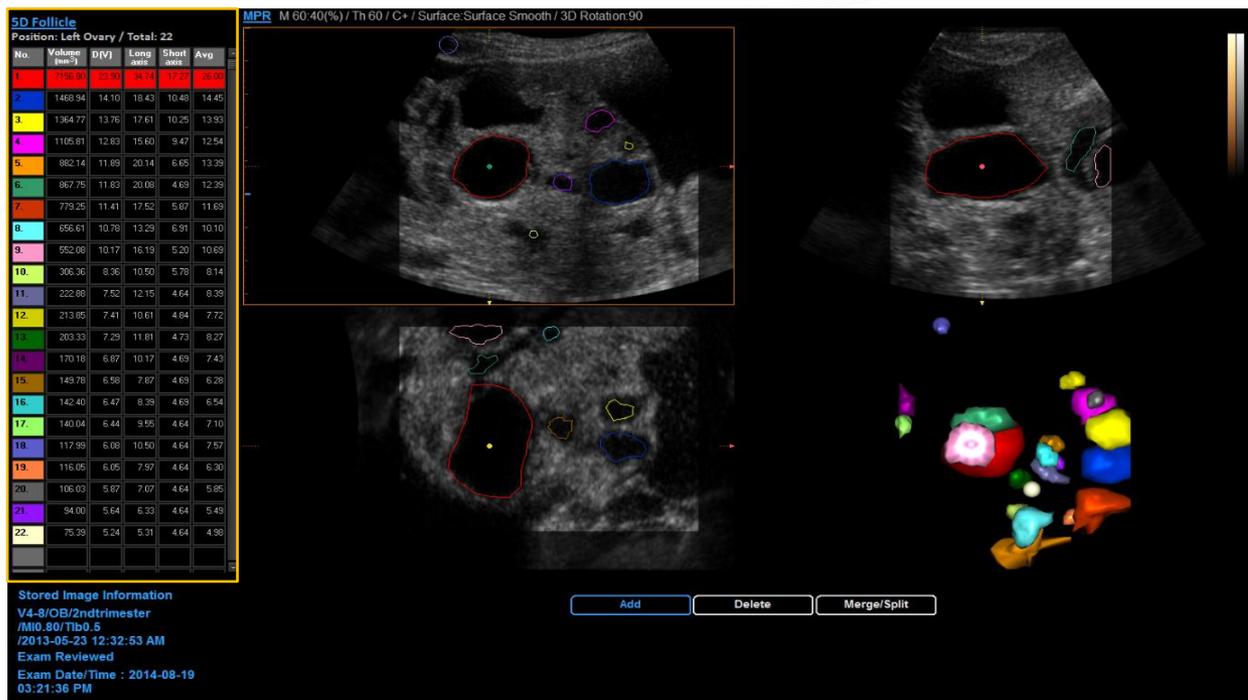
# Composition



## X, Y, Z plane and 3D Rendered image of the detected follicle.

- 5D follicle displays color-traced hypoechoic follicle margins on three planes and 3D rendered image shows follicles fulfilled with colors
- Each follicle is colored differently and its colors match to those on the left chart
- If you click a specific follicle on the image, the selected follicle is highlighted on the chart

# Composition



## Result chart of the calculated parameters.

- 5D Follicle automatically calculates multiple volumetric parameters and displays the result on the chart.
- Follicles are numbered in order of size from the biggest to the smallest, and each follicle is displayed with different colors.
- If you click a specific follicle on the list, the selected follicle is located on the center of image.

# Composition

01  
02  
03-1  
03-2  
04  
05

**5D Follicle**  
Position: Left Ovary / Total: 22

No.	Volume [mm <sup>3</sup> ]	D[V]	Long axis	Short axis	Avg
1	7156.80	23.90	34.74	17.27	26.00
2	1468.94	14.10	18.43	10.49	14.45
3	1364.77	13.76	17.61	10.25	13.93
4	1105.81	12.83	15.60	9.47	12.54
5	982.14	11.89	20.14	6.65	13.39
6	867.75	11.83	20.08	4.69	12.39
7	779.25	11.41	17.52	5.87	11.69
8	656.61	10.78	13.29	6.91	10.10
9	552.08	10.17	16.19	5.20	10.69
10	306.36	8.36	10.50	5.79	8.14
11	222.88	7.52	12.15	4.64	8.39
12	213.85	7.41	10.61	4.84	7.72
13	203.33	7.29	11.81	4.73	8.27
14	170.18	6.87	10.17	4.69	7.43
15	149.78	6.58	7.87	4.69	6.28
16	142.40	6.47	8.39	4.69	6.54
17	140.04	6.44	9.55	4.64	7.10
18	117.99	6.08	10.50	4.64	7.57
19	116.05	6.05	7.97	4.64	6.30
20	106.03	5.87	7.07	4.64	5.85
21	94.00	5.64	6.33	4.64	5.49
22	75.39	5.24	5.31	4.64	4.98

**5D Follicle**  
Response: Left Ovary / Total: 22

MPR M 60.40% / Th 60 / C+ / Surface:Surface Smooth / 3D Rotation 90

No.	Volume [mm <sup>3</sup> ]	D[V]	Long axis	Short axis	Avg
1	7156.80	23.90	34.74	17.27	26.00
2	1468.94	14.10	18.43	10.49	14.45
3	1364.77	13.76	17.61	10.25	13.93
4	1105.81	12.83	15.60	9.47	12.54
5	982.14	11.89	20.14	6.65	13.39
6	867.75	11.83	20.08	4.69	12.39
7	779.25	11.41	17.52	5.87	11.69
8	656.61	10.78	13.29	6.91	10.10
9	552.08	10.17	16.19	5.20	10.69
10	306.36	8.36	10.50	5.79	8.14
11	222.88	7.52	12.15	4.64	8.39
12	213.85	7.41	10.61	4.84	7.72
13	203.33	7.29	11.81	4.73	8.27
14	170.18	6.87	10.17	4.69	7.43
15	149.78	6.58	7.87	4.69	6.28
16	142.40	6.47	8.39	4.69	6.54
17	140.04	6.44	9.55	4.64	7.10
18	117.99	6.08	10.50	4.64	7.57
19	116.05	6.05	7.97	4.64	6.30
20	106.03	5.87	7.07	4.64	5.85
21	94.00	5.64	6.33	4.64	5.49
22	75.39	5.24	5.31	4.64	4.98

Stored Image Information  
V4-8/OB/2ndtrimester  
/MIO.80/Tib0.5  
/2013-05-23 12:32:53 AM  
Exam Reviewed  
Exam Date/Time : 2014-08-19  
03:21:36 PM

Add Delete Merge/Split

Result chart of the calculated parameters.

<b>Volume</b>	Follicle volume of a perfect sphere
<b>D[V]</b>	Follicle diameter of a perfect sphere
<b>Long/Short axis</b>	Diameters of an ellipsoid model
<b>Avg</b>	Average diameter of the long and short axis

# Measure by 'Auto' method

01

02

03-1

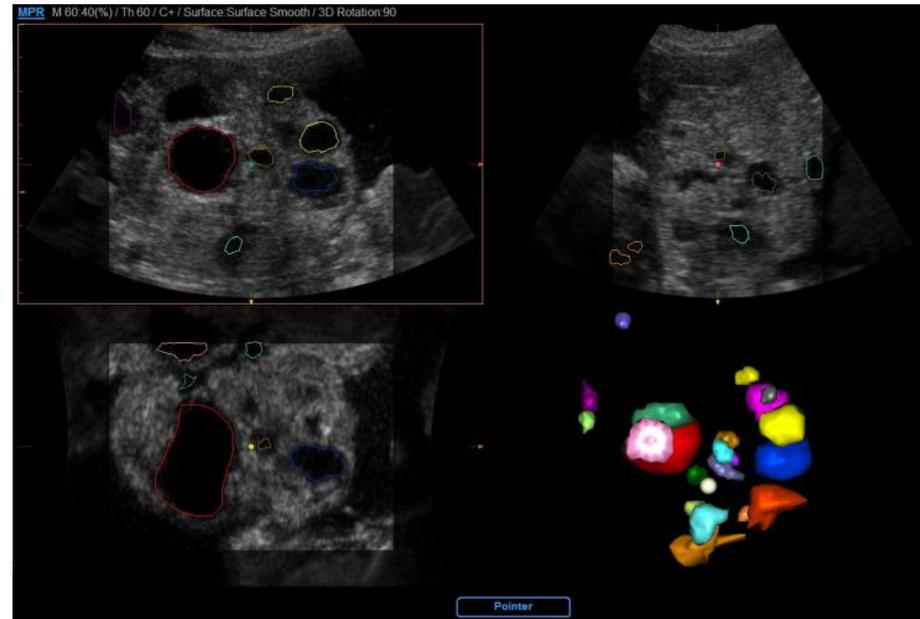
03-2

04

05

**5D Follicle**  
Position: Left Ovary / Total: 22

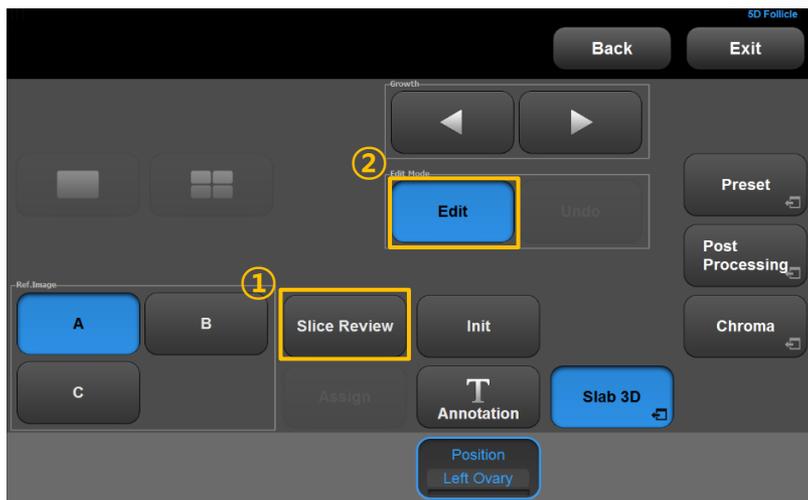
No.	Volume (mm <sup>3</sup> )	D[V]	Long axis	Short axis	Avg
1	7196.80	23.90	34.74	17.27	26.00
2	1468.94	14.10	18.43	10.49	14.45
3	1364.77	13.76	17.61	10.25	13.93
4	1105.81	12.83	15.60	9.47	12.54
5	882.14	11.89	20.14	6.85	13.39
6	867.75	11.89	20.08	4.69	12.39
7	779.25	11.41	17.52	5.87	11.69
8	696.61	10.78	13.29	6.91	10.10
9	552.08	10.17	16.19	5.20	10.69
10	306.36	8.36	10.50	5.78	8.14
11	222.98	7.52	12.15	4.64	8.39
12	213.85	7.41	10.61	4.84	7.72
13	203.33	7.29	11.81	4.73	8.27
14	170.18	6.87	10.17	4.69	7.43
15	149.78	6.58	7.87	4.69	6.28
16	142.40	6.47	8.39	4.69	6.54
17	140.04	6.44	9.55	4.64	7.10
18	117.99	6.08	10.50	4.64	7.57
19	116.05	6.05	7.97	4.64	6.30
20	106.03	5.87	7.07	4.64	5.85
21	94.00	5.64	6.33	4.64	5.49
22	75.39	5.24	5.31	4.64	4.98



- When you select the 'Auto' method, follicles are automatically detected.
- Results are editable by using 'Edit' function.



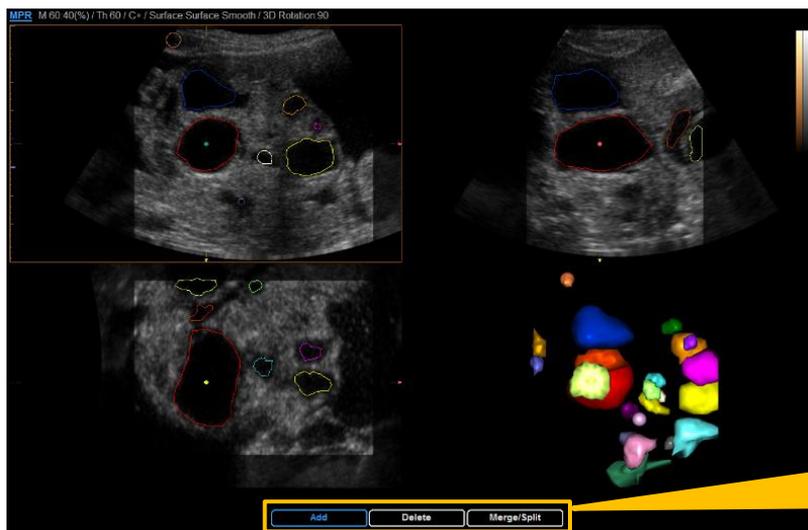
# Edit the detection result



[Touch Screen]

## ① Slice Review

When you want to review undetected follicles on different slice, tap the 'Slice Review' button, which makes it possible to see the consecutive slices on each plane



② Tap the 'Edit' button to manually exam the follicles. 'Add', 'Delete' and 'Merge/Split' functions are selected by 'change' button on the control panel



01  
02  
03-1  
03-2  
04  
05

# Edit the detection result

01

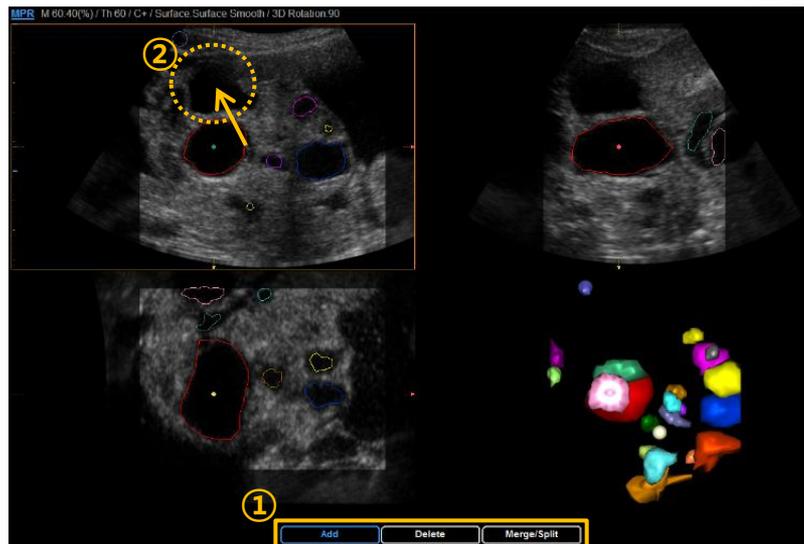
02

03-1

03-2

04

05



## ▪ Edit – Add

- ① Activate the 'Add' function by using 'change' button on the control panel

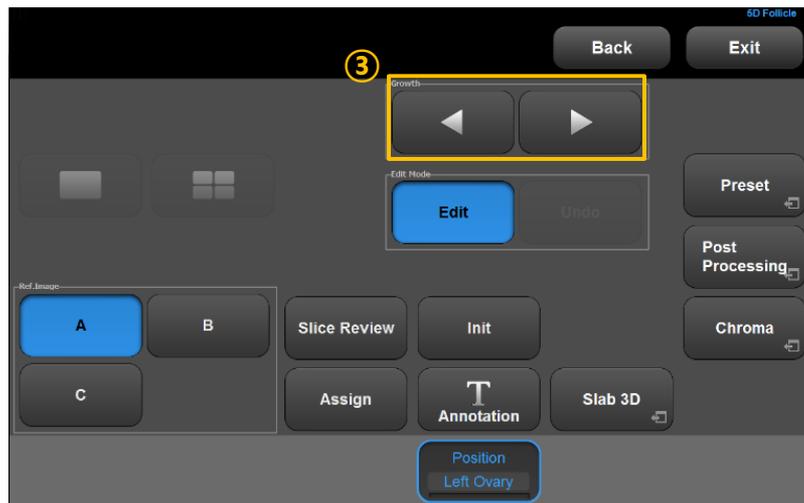
Click the undetected follicle by a trackball and press "set" button

- ② Selected follicle is automatically calculated its volumetric value and the measured results are listed on the chart

- ③ Adjust the size of contoured follicle by 'Growth' button on the touch screen.

'▶' means increment

'◀' means decrement



# Edit the detection result

01

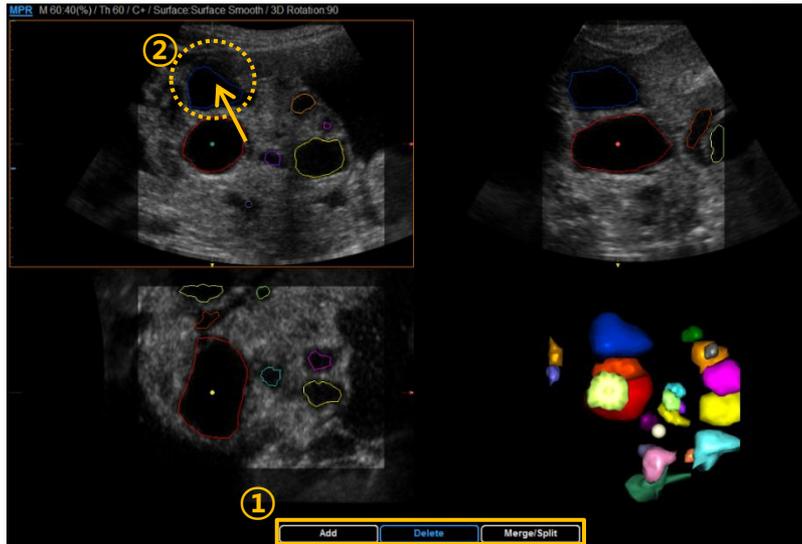
02

03-1

03-2

04

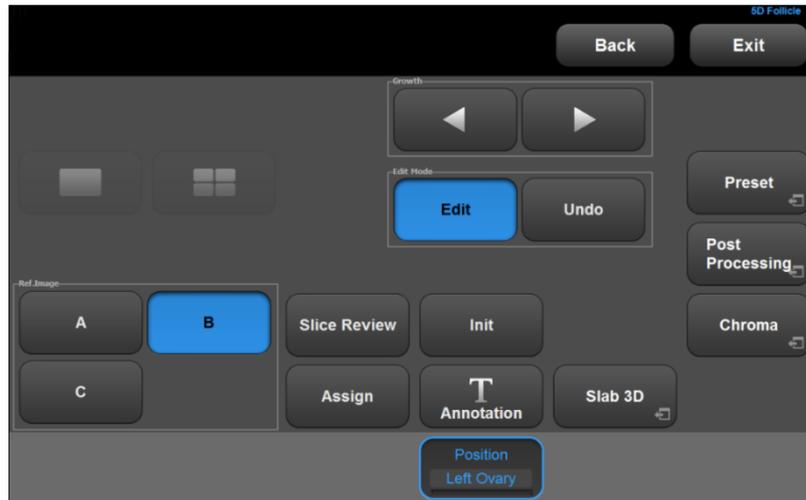
05



- Edit – Delete

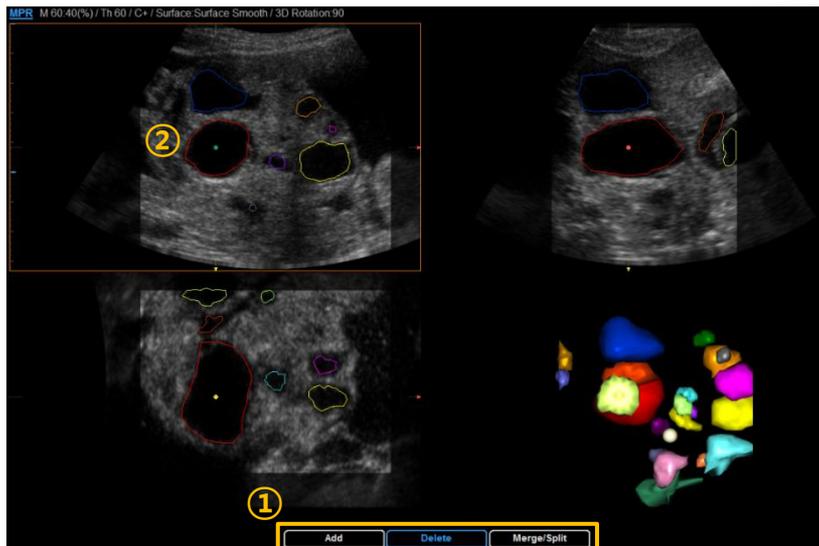
- ① Activate the ‘Delete’ function by ‘change’ button on the control panel

- ② Put the cursor on the follicle that you want to remove, and press “Set” button on control panel



- If you want to cancel last action, tap the “Undo” button on the touch screen

# Edit the detection result



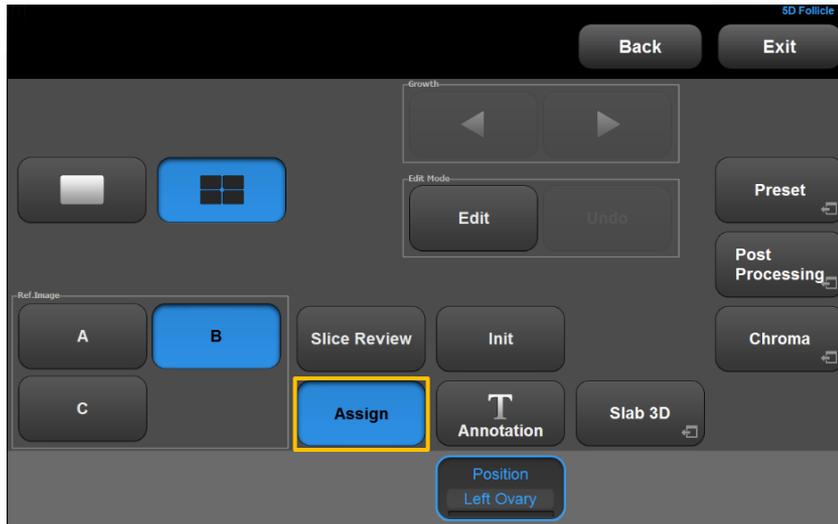
- Edit – Merge
  - ① Activate the ‘Merge/Split’ function by ‘change’ button on the control panel
  - ② If one follicle was recognized as two different follicles, click those follicles with “Set” button. They will be merged with one follicle
  
- Edit – Split
  - ① Activate the ‘Merge/Split’ function by ‘change’ button on the control panel
  - ② If two different follicles are recognized as one follicle, click the follicles with “Set” button. It will be divided into two follicles automatically

## ※ Note :

If the selected follicle is already detected with other anechoic structure, it might be deleted without merge

# Apply to the report

01  
02  
03-1  
03-2  
04  
05



- Tap the 'Assign' button on the touch screen, measurement value will be saved on the report

Exam. Date	2014-08-19	ID	WS80A 34		
Gender	Female	Description	5D Follicle		
(a) Avg., (m) Min, (M) Max, (L) Last					
[ Gynecology ]					
Lt. 5D Follicle(23)					
	Vol.(mm <sup>3</sup> )	D(V)	Long	Short	Avg.
1	7156.80	23.90	34.74	17.27	26.00
2	3154.62	18.19	24.92	11.62	18.27
3	1488.94	14.10	18.43	10.48	14.45
4	1364.77	13.76	17.61	10.25	13.93
5	1105.81	12.83	15.60	9.47	12.54
6	882.14	11.89	20.14	6.65	13.39
7	867.75	11.83	20.08	4.69	12.39
8	779.25	11.41	17.52	5.87	11.69
9	656.61	10.78	13.29	6.91	10.10
10	552.08	10.17	16.19	5.20	10.69
11	306.36	8.36	10.50	5.78	8.14
12	222.88	7.52	12.15	4.64	8.39
13	213.85	7.41	10.61	4.84	7.72
14	203.33	7.29	11.81	4.73	8.27
15	170.18	6.87	10.17	4.69	7.43
16	149.78	6.58	7.87	4.69	6.28
17	142.40	6.47	8.39	4.69	6.54
18	140.04	6.44	9.55	4.64	7.10
19	117.99	6.08	10.50	4.64	7.57
20	116.05	6.05	7.97	4.64	6.30

- If there are some changes on the results, press 'Assign' button again to update the results on report.

# Thank you