29th TCTAP2024

New Launched M-TEER Device for Degenerative Mitral Regurgitation: PASCAL Experiences in JAPAN

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CVRF

Disclosure

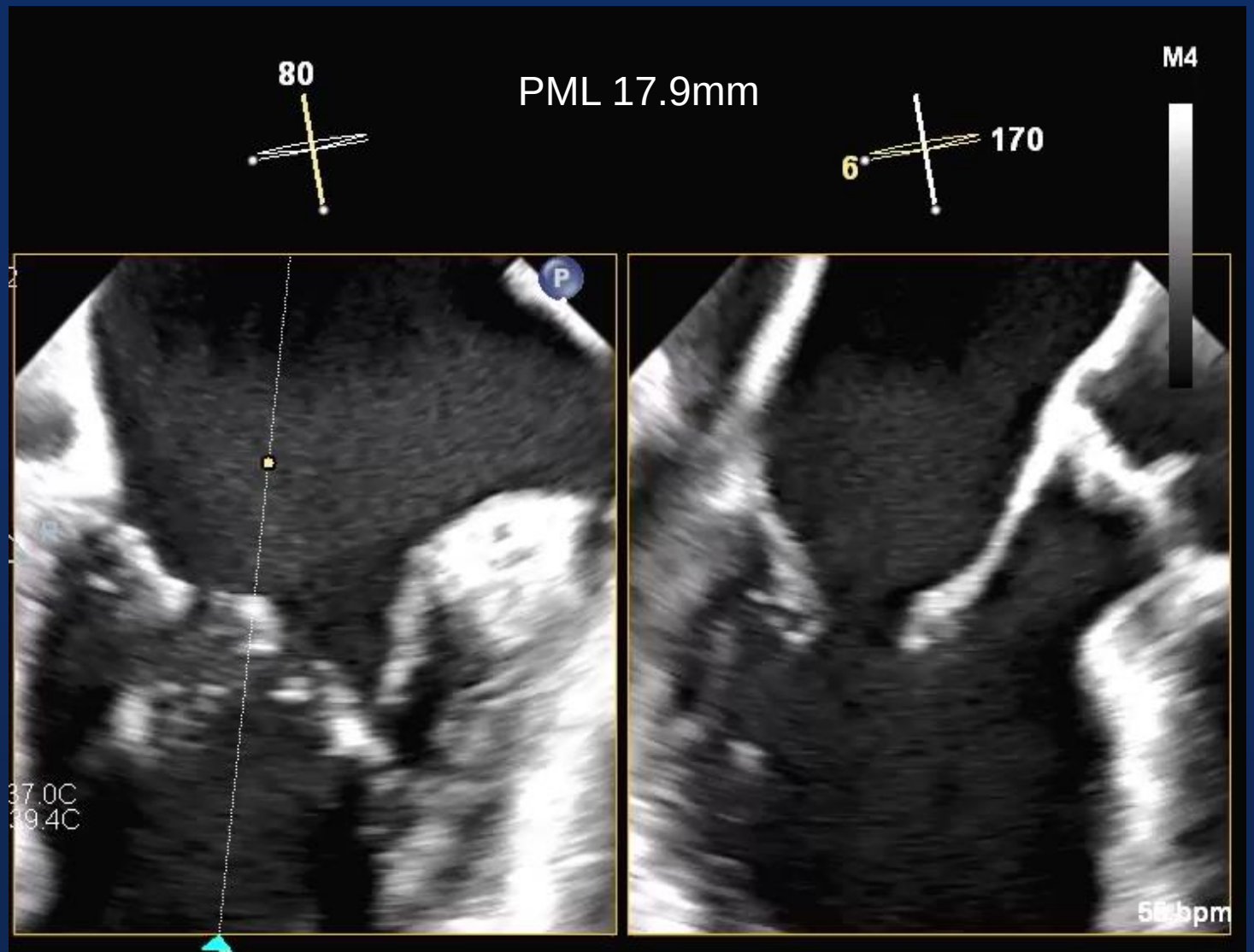
I have the following potentiel conflicts of interest to declare:

Proctor: Abbott, Edwards Lifesciences, Medtronic

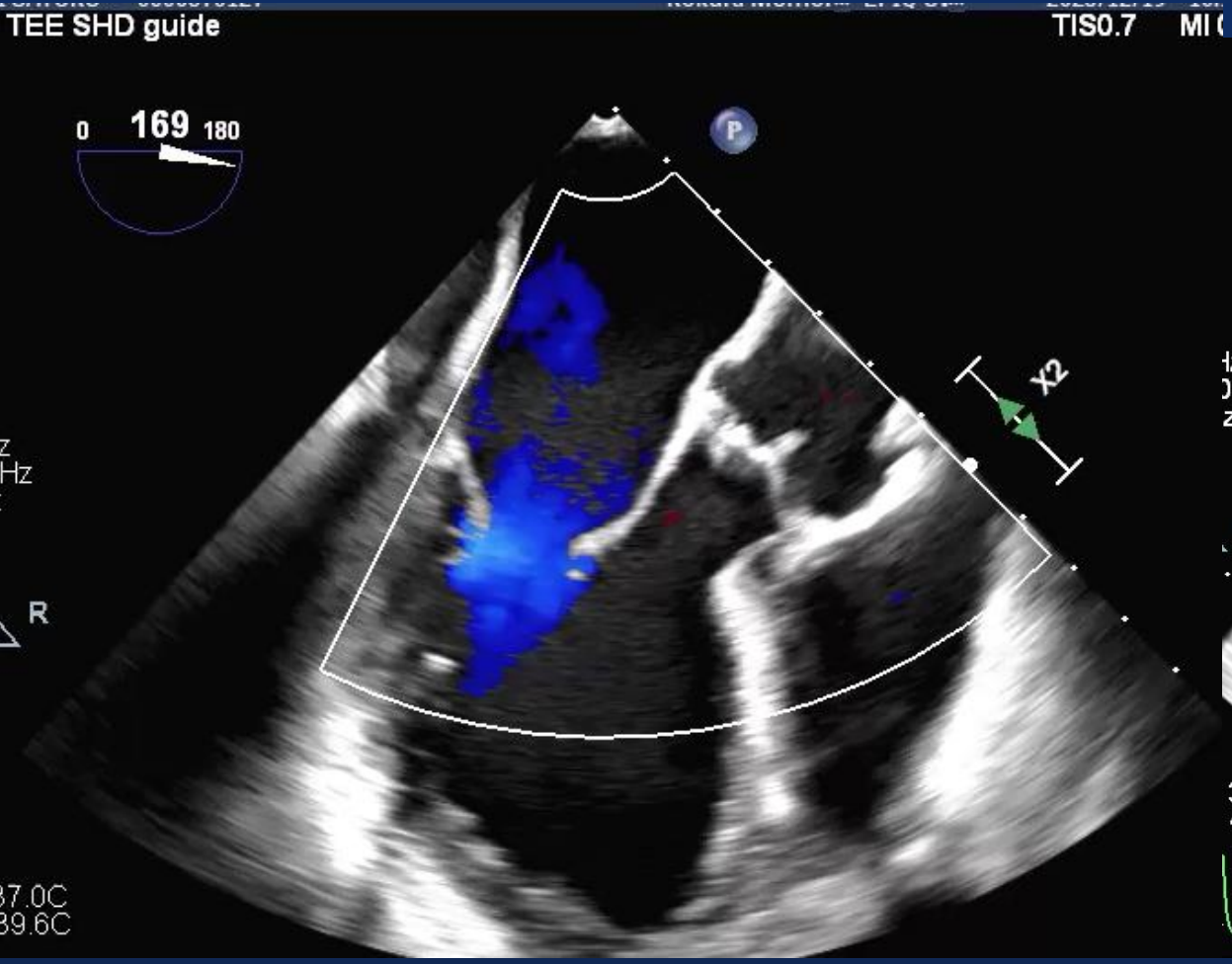
Speaker honorarium: Edwards Lifesciences, Medtronic,

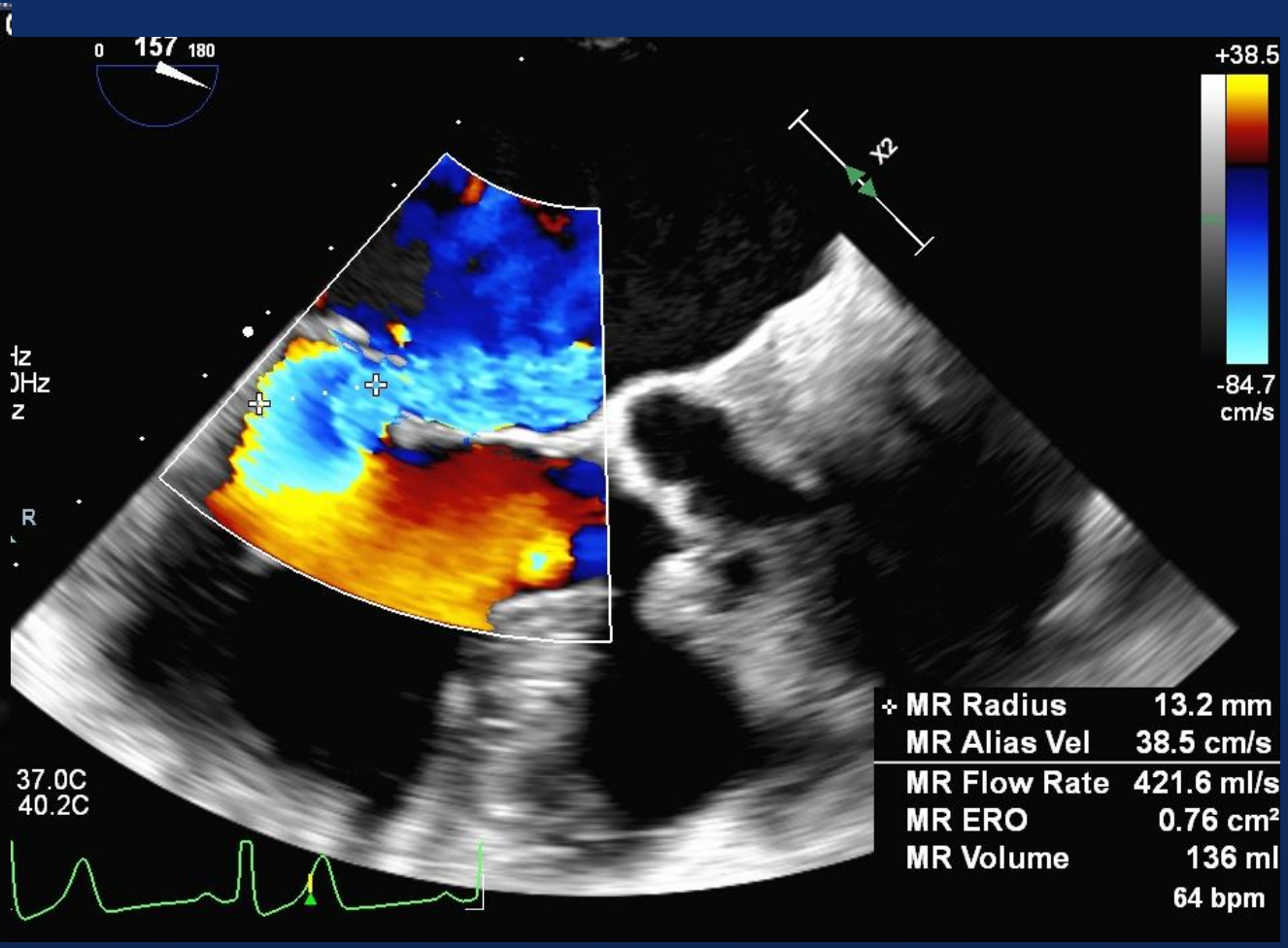
79 y.o Woman Severe MR d/t P2 prolapse

PSL user (Erythema nodosum), Hx of LK, Primary sclerotic cholangitis, No cognitive dysfunction

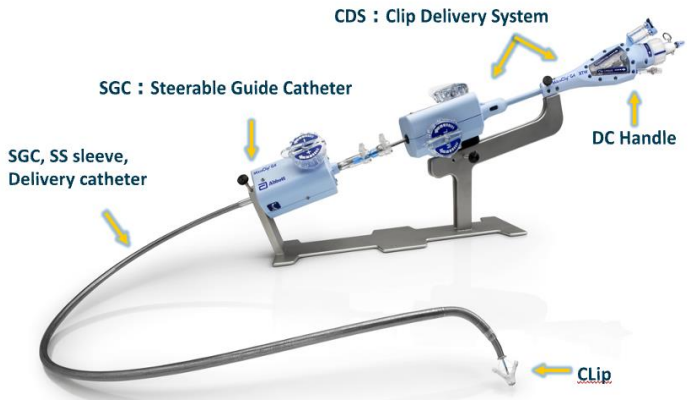


Pre TEE


TEE SHD guide
TIS0.7
0
169
180
X2
R
37.0C
39.6C


0
157
180
+38.5
-84.7
cm/s
X2
R
37.0C
40.2C
MR Radius 13.2 mm
MR Alias Vel 38.5 cm/s
MR Flow Rate 421.6 ml/s
MR ERO 0.76 cm²
MR Volume 136 ml
64 bpm

The PASCAL Precision transcatheter valve system



Implant Catheter Handle

Steerable Catheter Handle

Guide Sheath Handle

Handle Design
Intuitive operation & implant release

Reusable Accessories

Stabilizer Rail System
Stabilizes each handle while maneuvering catheters

Responsive Catheters
Optimized torque transfer and stability

PASCAL Ace &
PASCAL implants

2 types of PASCAL implant

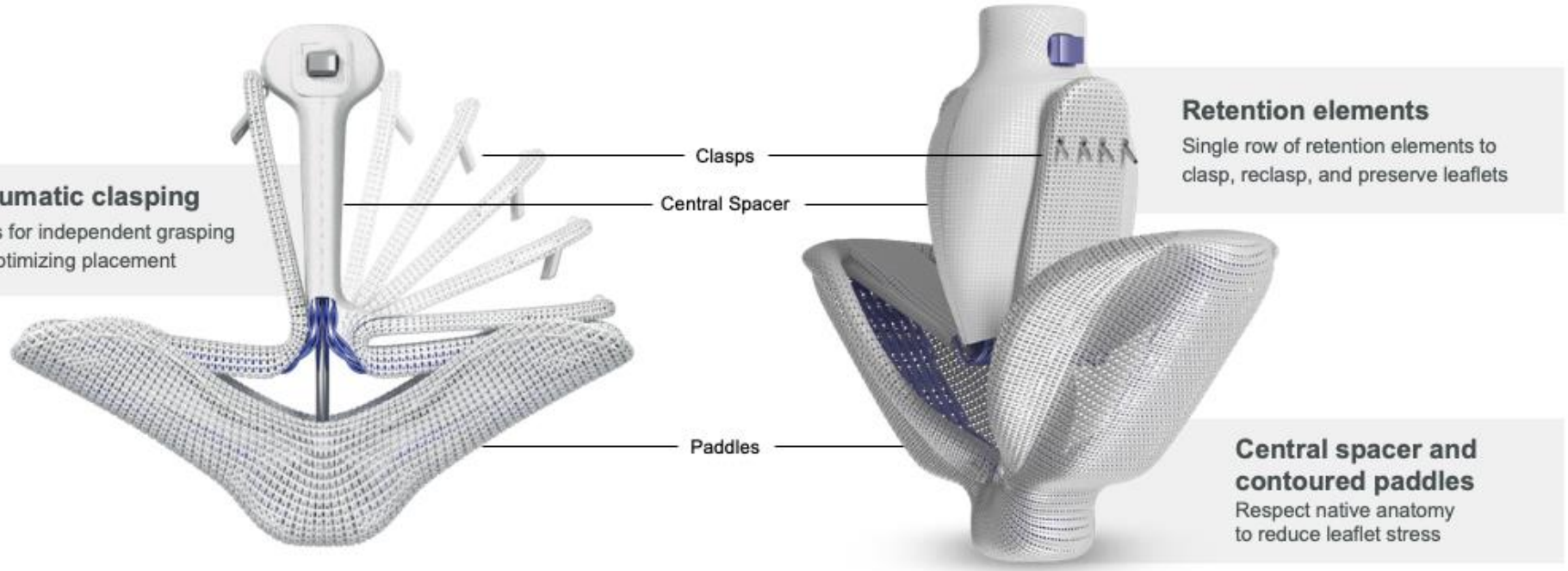
PASCAL and PASCAL Ace

The PASCAL & PASCAL Ace implants

For degenerative mitral regurgitation

PASCAL Ace implant

PASCAL implant



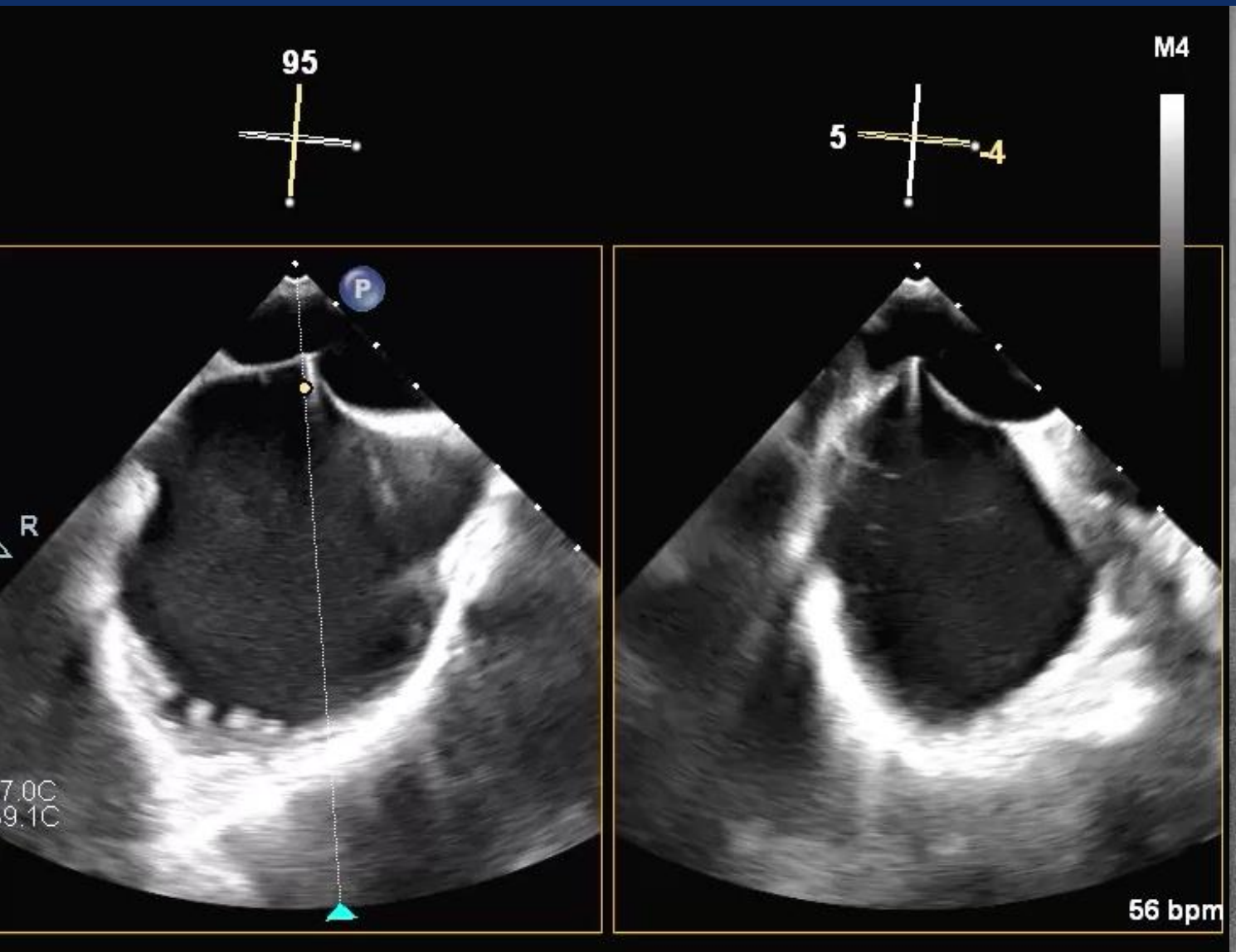
Atraumatic clasping
Allows for independent grasping and optimizing placement

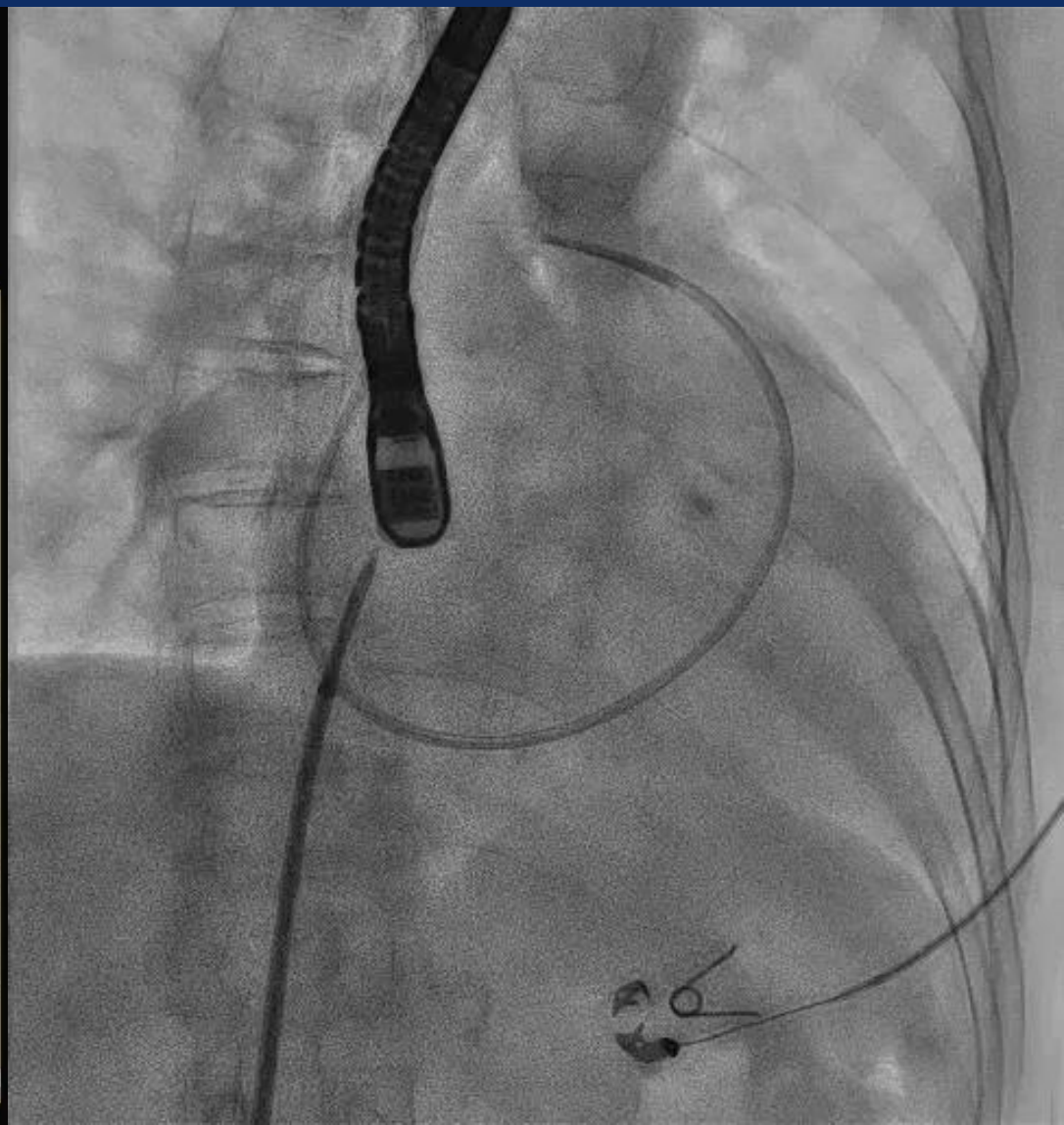
Retention elements
Single row of retention elements to clasp, reclasp, and preserve leaflets

Central spacer and contoured paddles
Respect native anatomy to reduce leaflet stress

CVRF

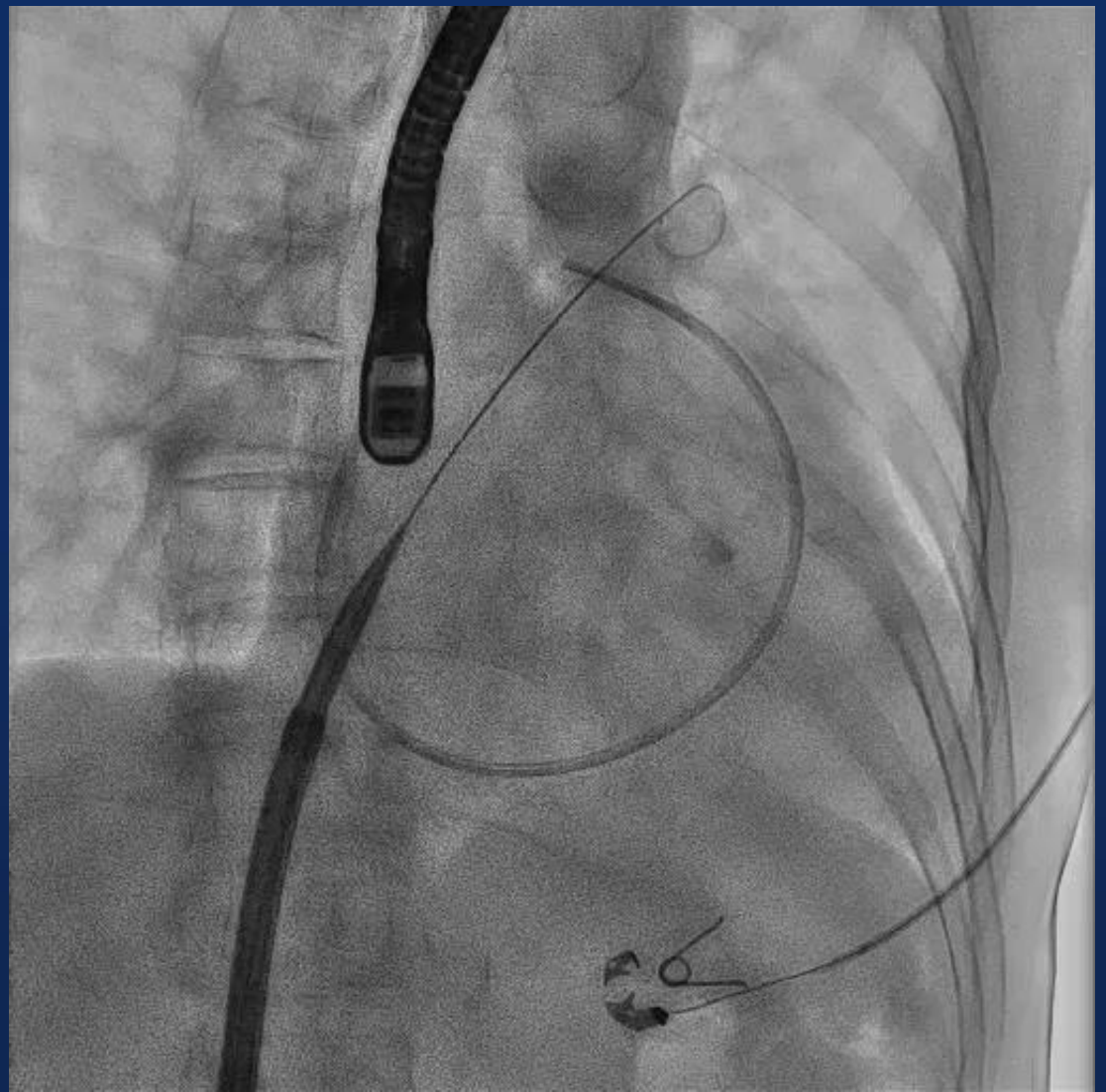
Trans-septal puncture



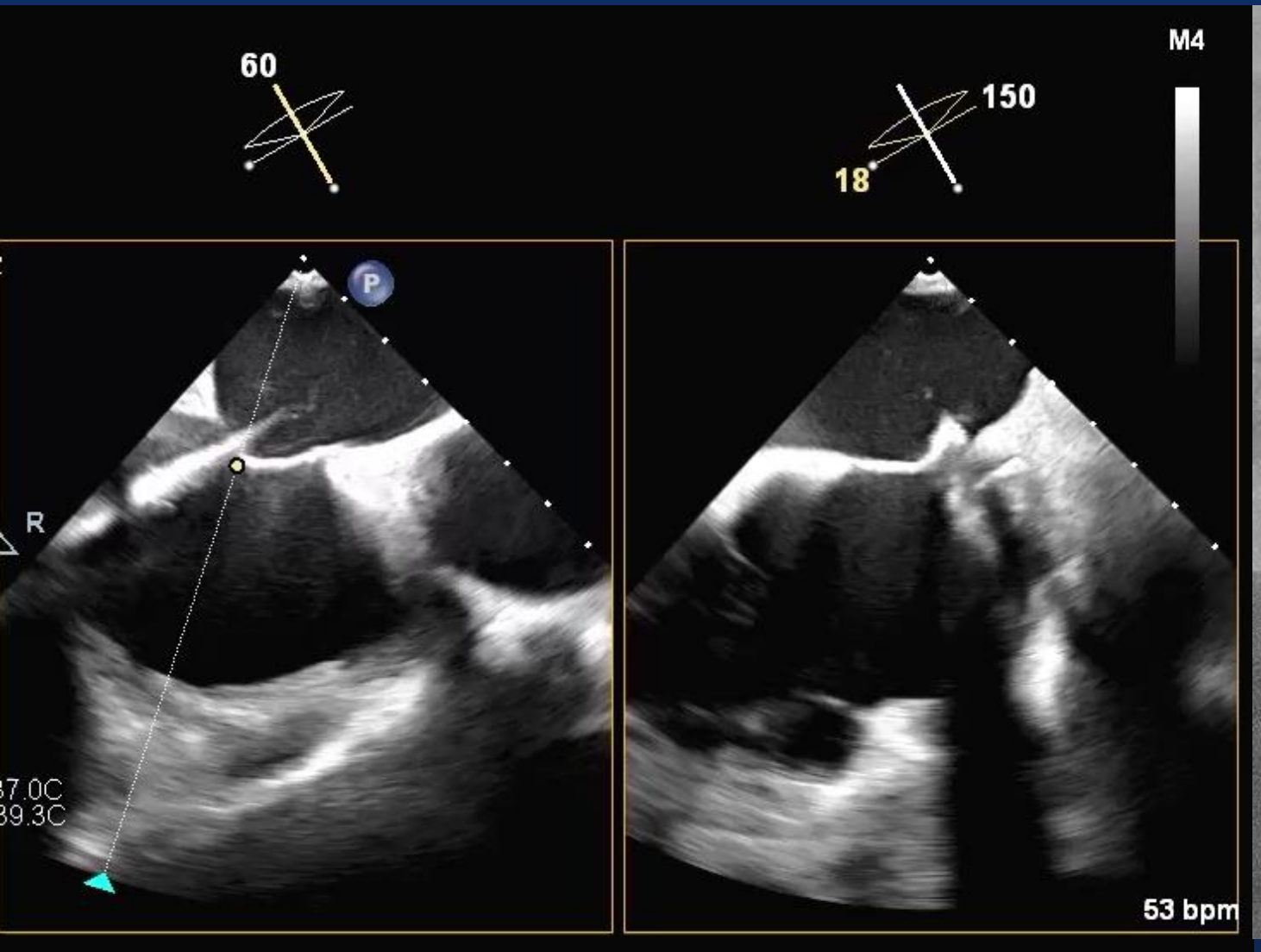


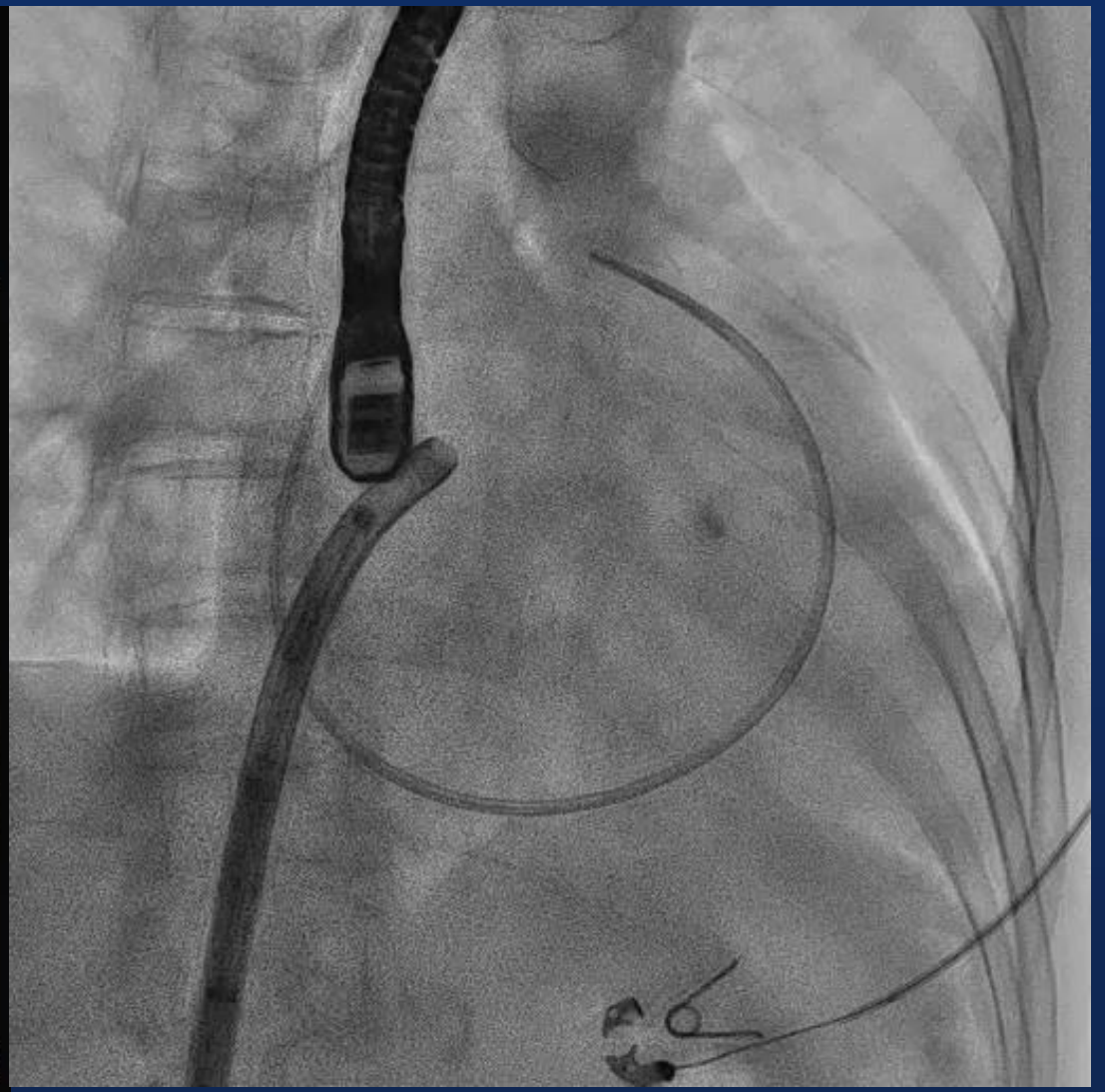
Guide sheath insertion

Extremely easy to penetrate the septum and femoral access site.



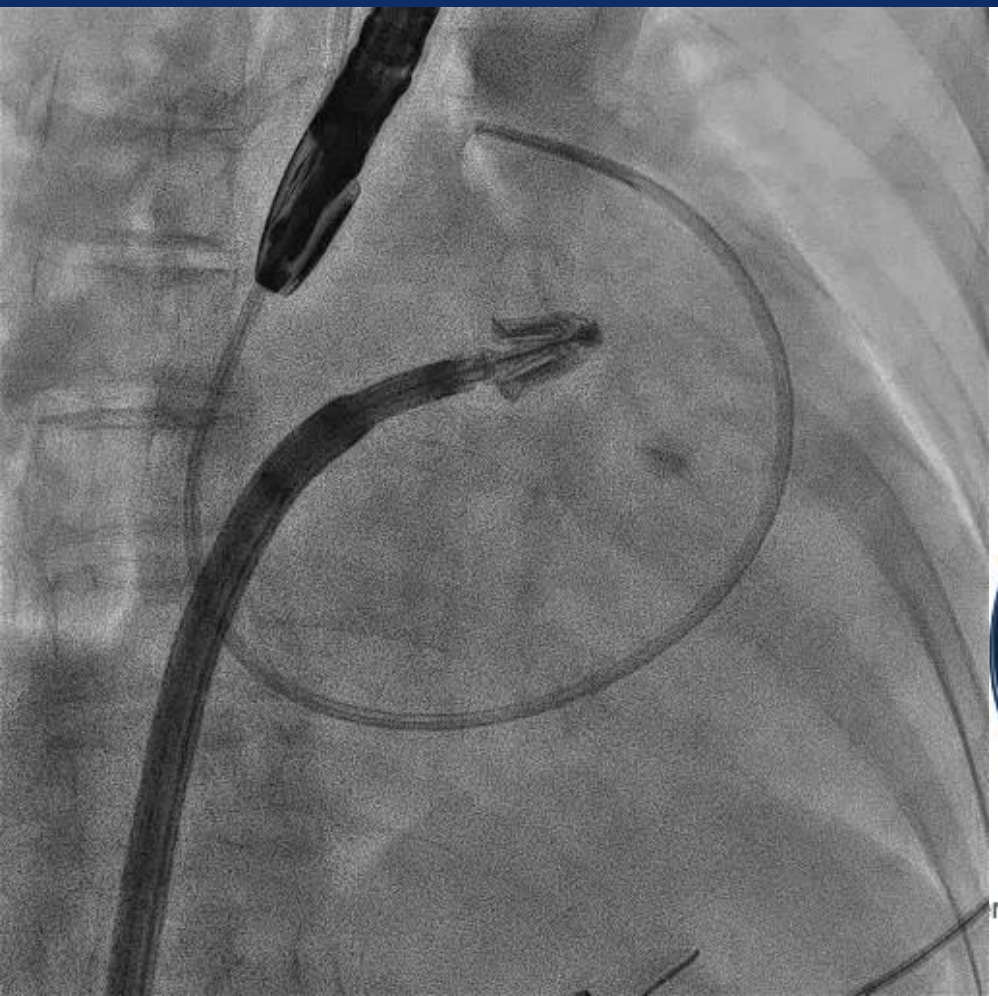
Implant system insertion

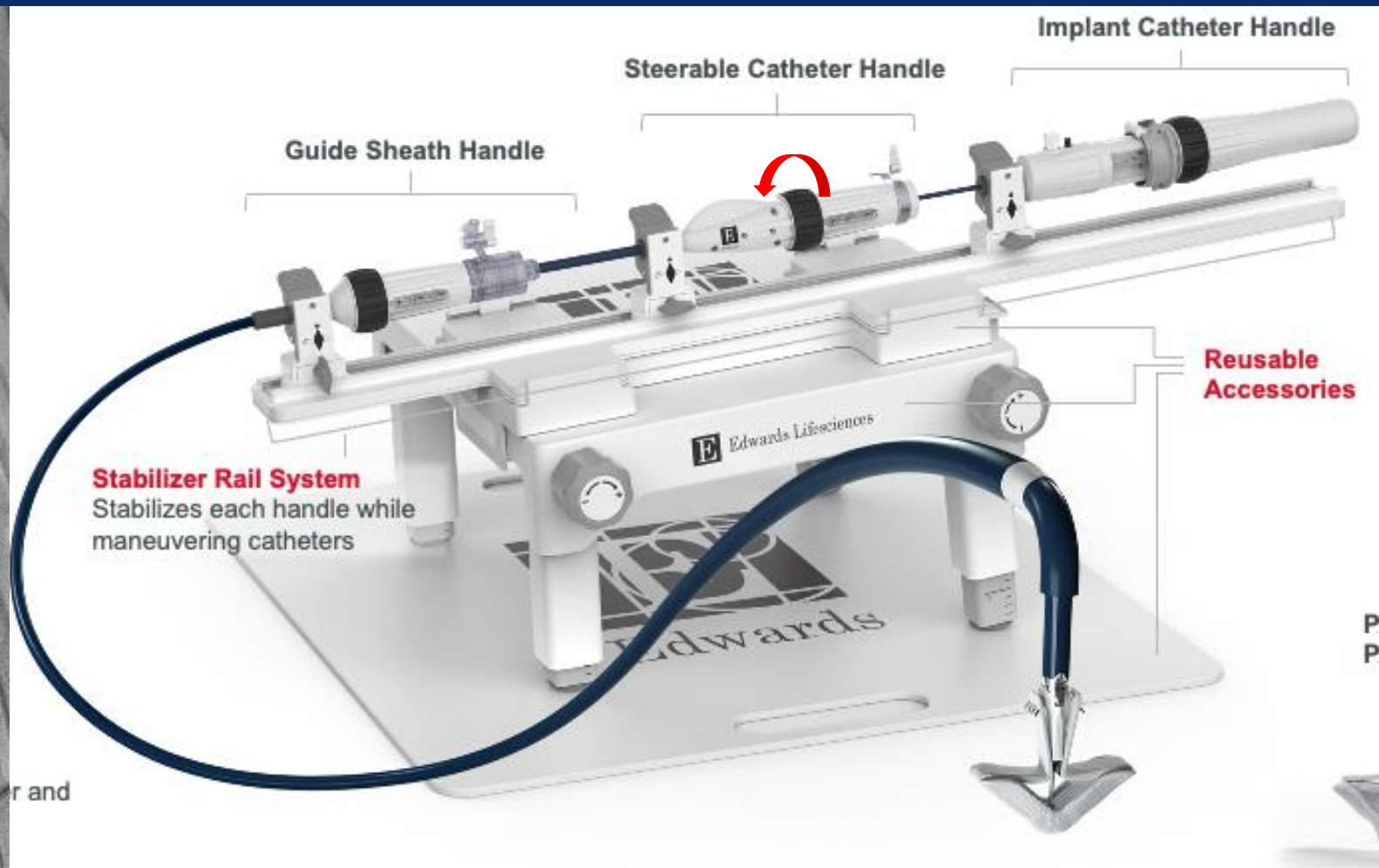




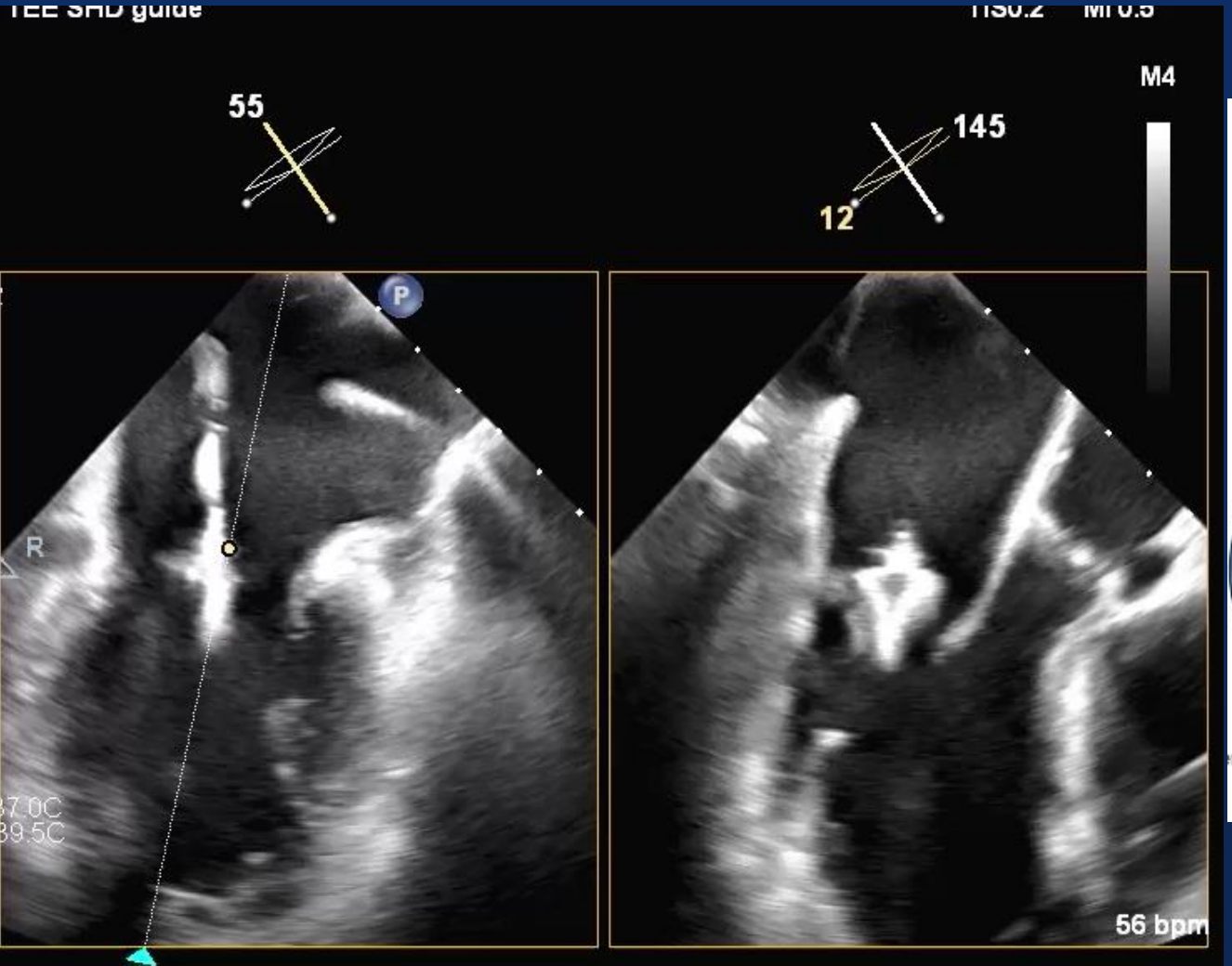
Steering down

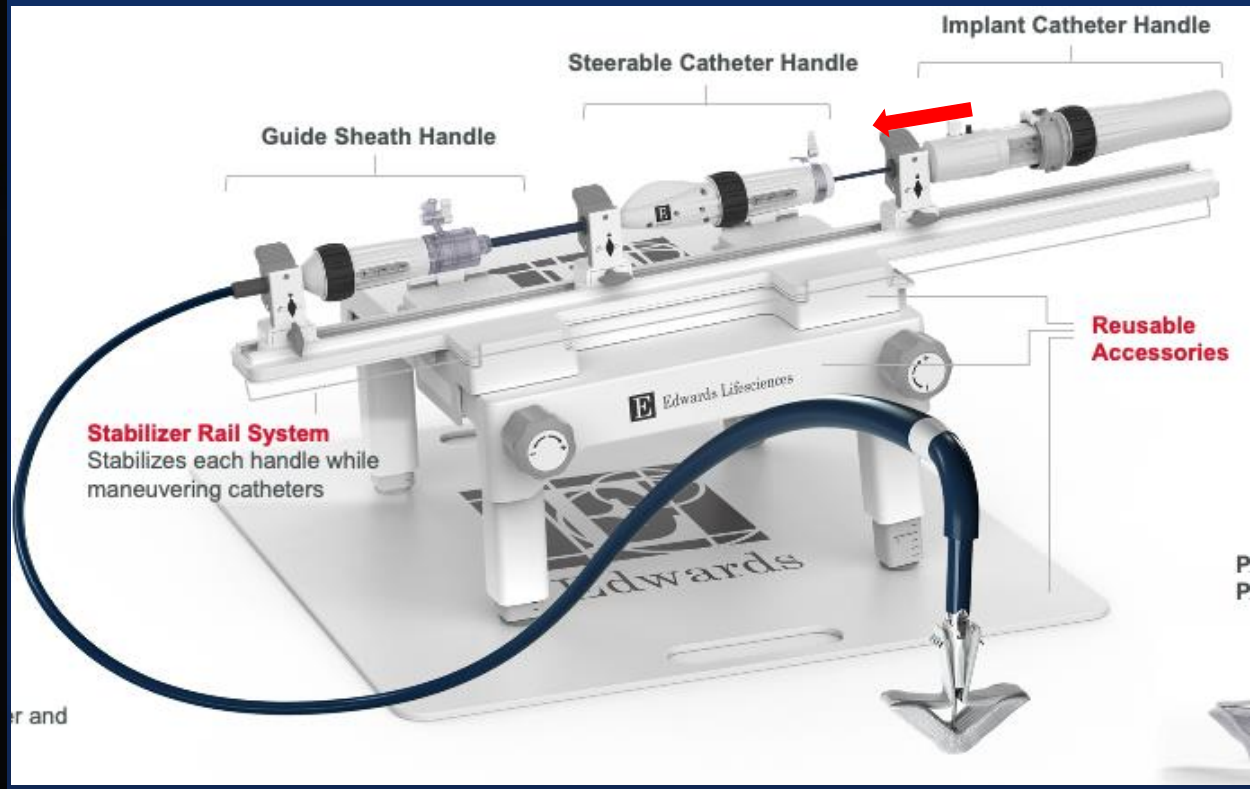
Unlike MitraClip, No posterior movement of guide sheath is needed.



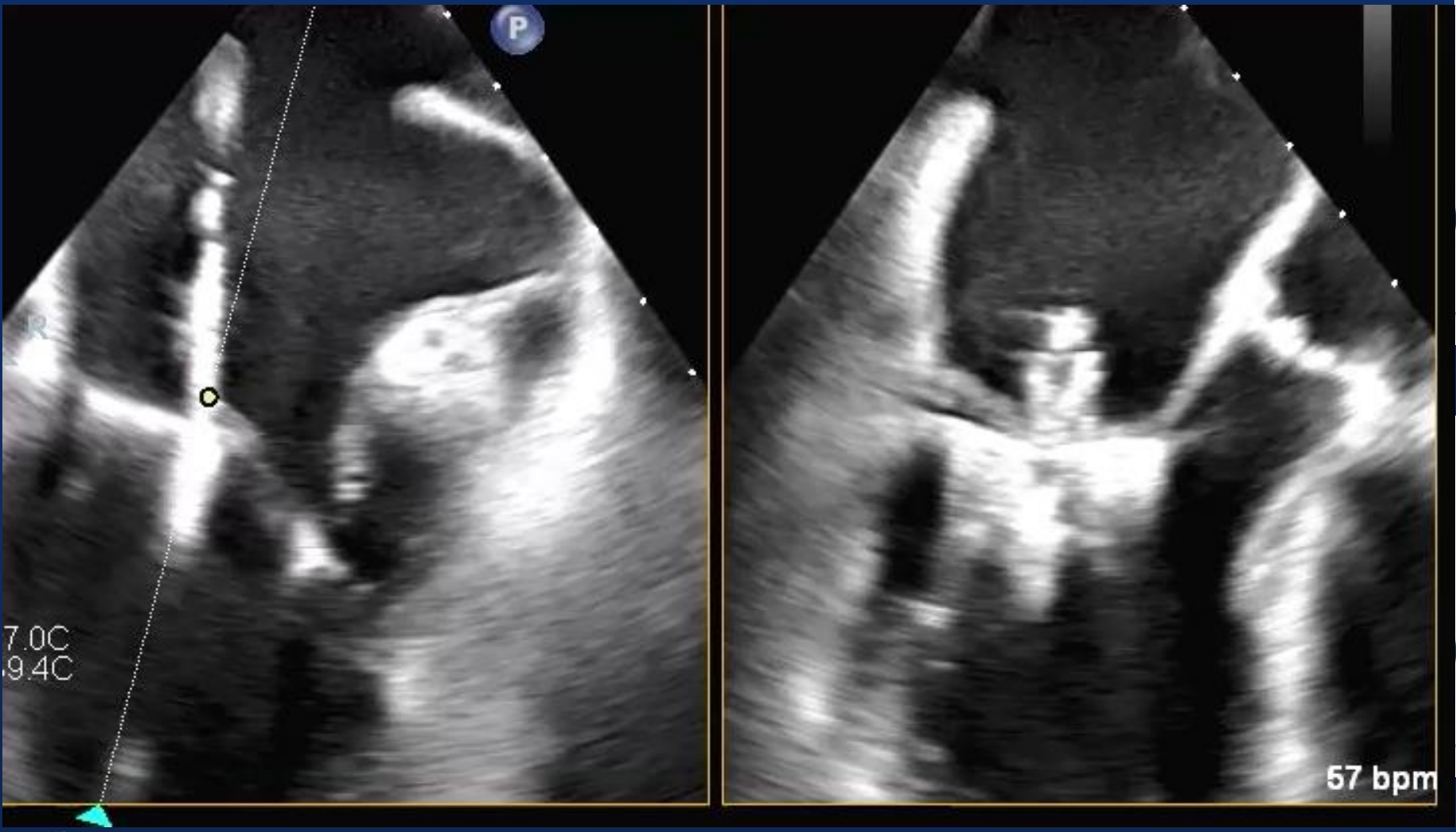


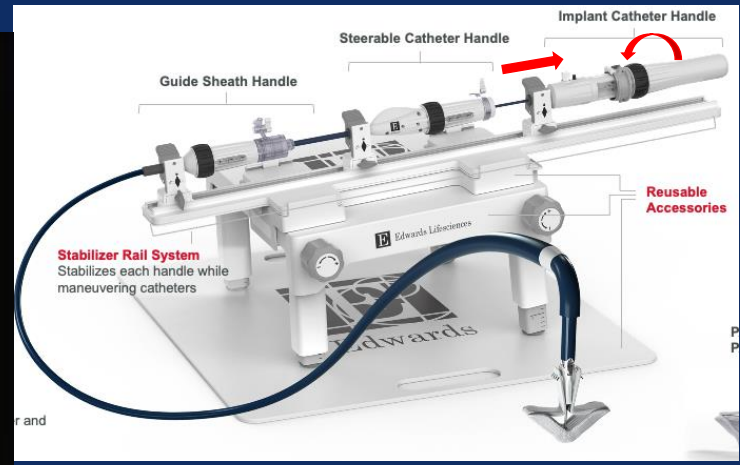
Trajectory and PASCAL insertion to LV

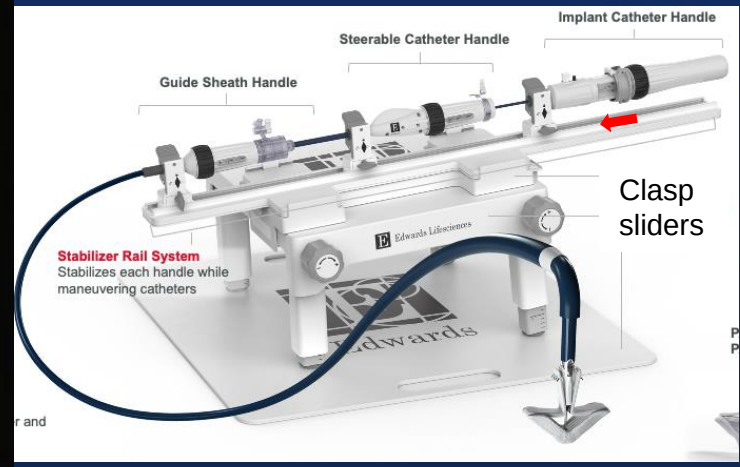




Paddle opening, grasping and Clasp down



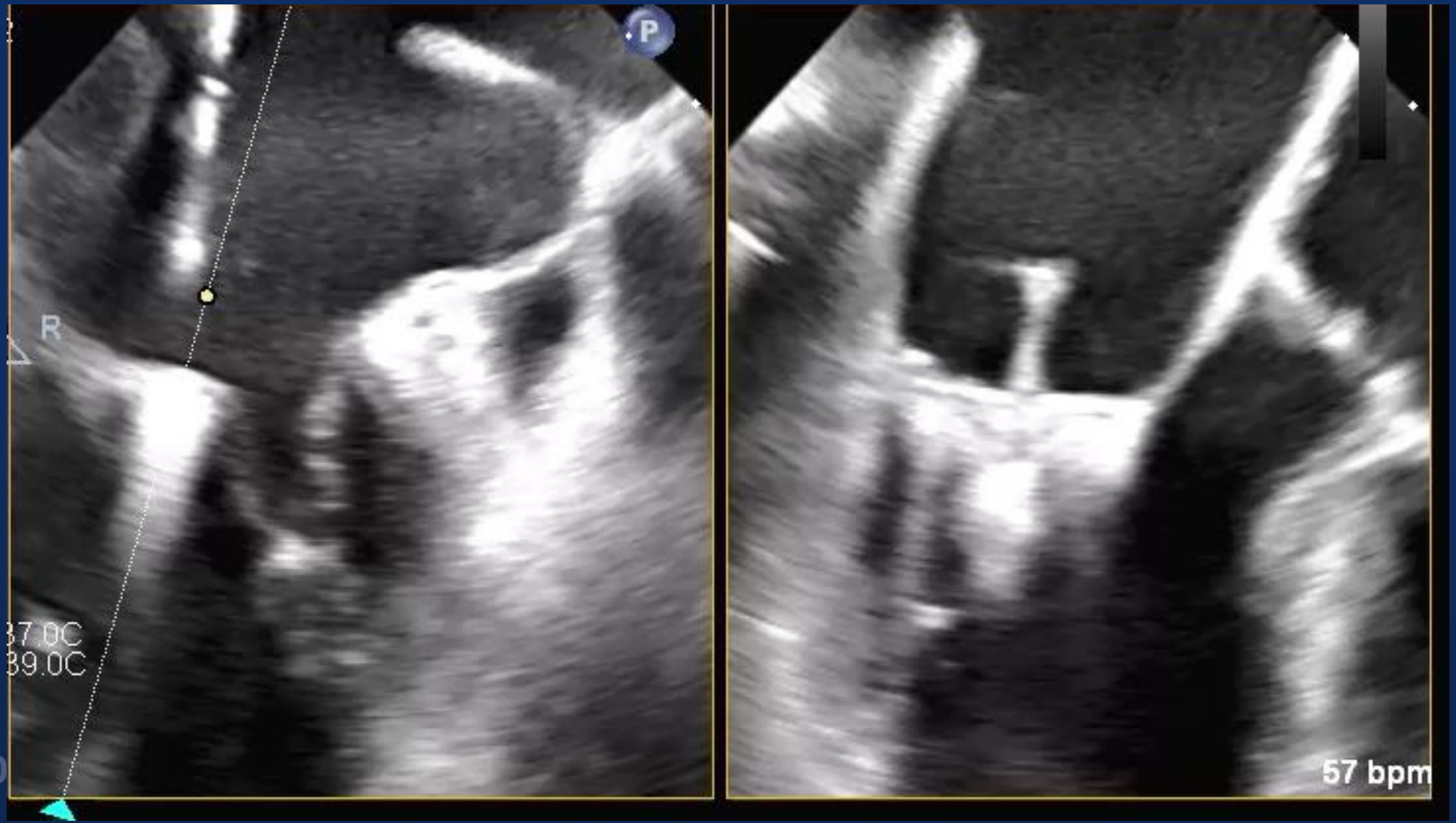


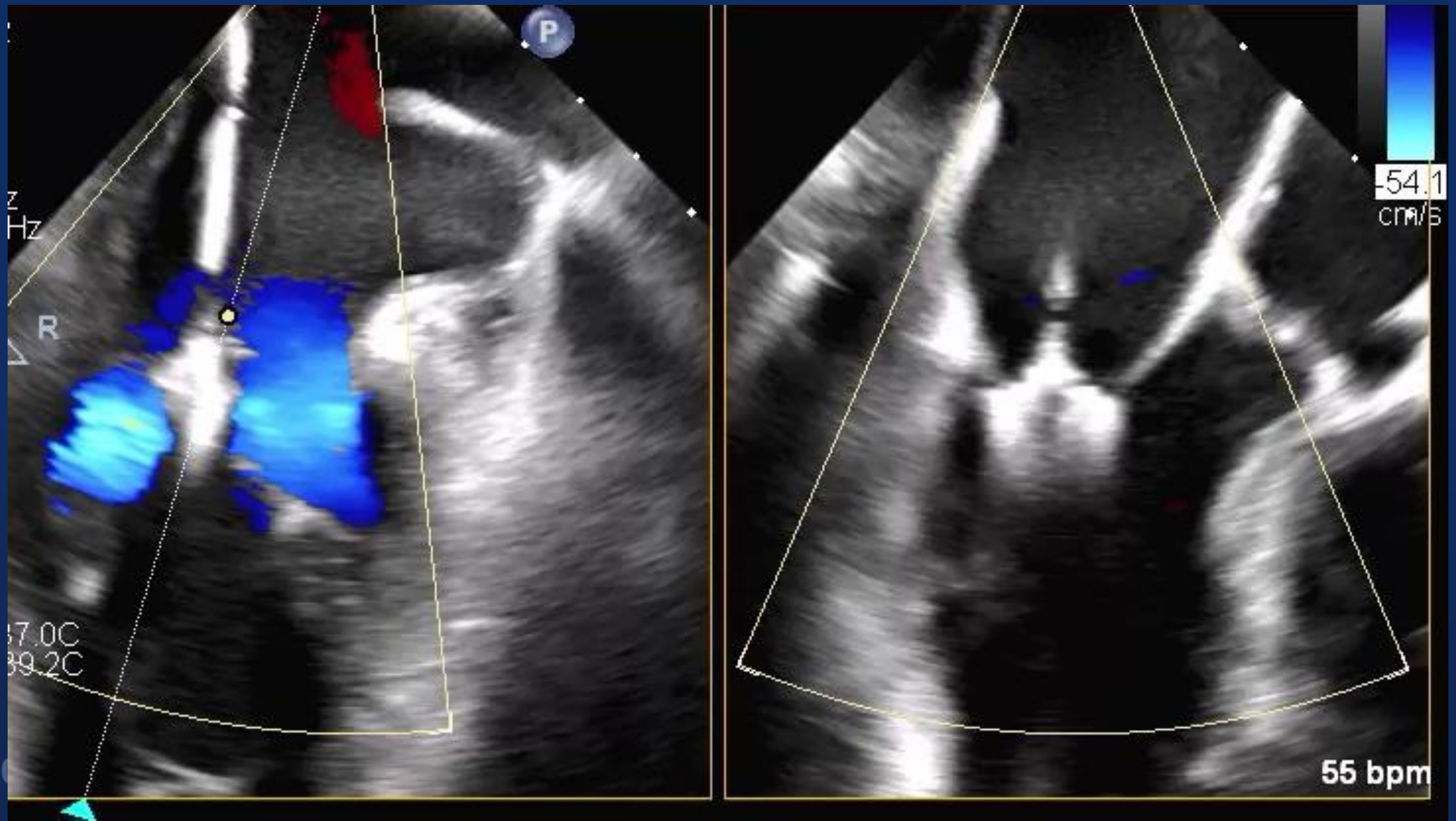


Closing the paddle

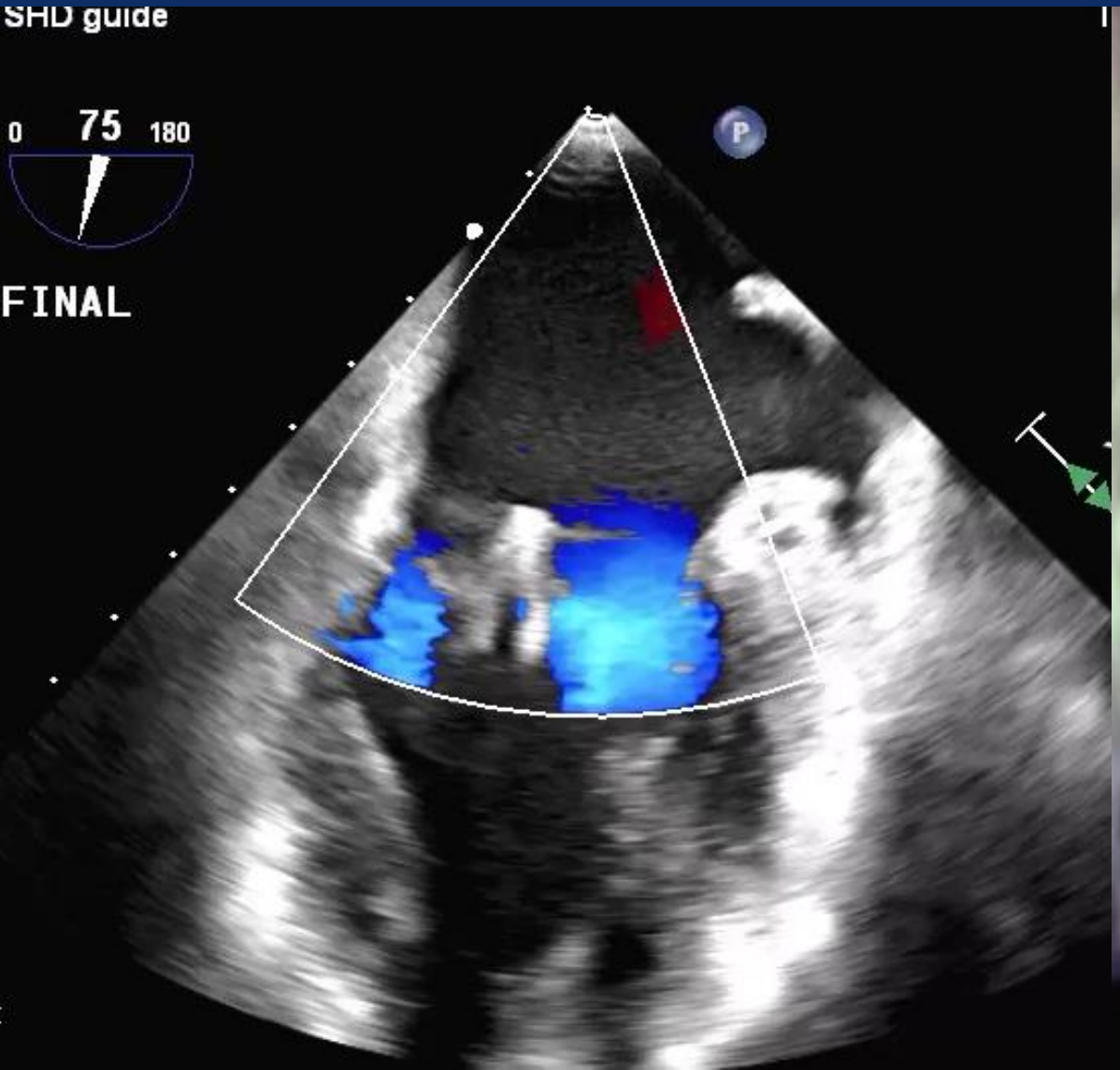
But, the posterior leaflet is not enough grasping

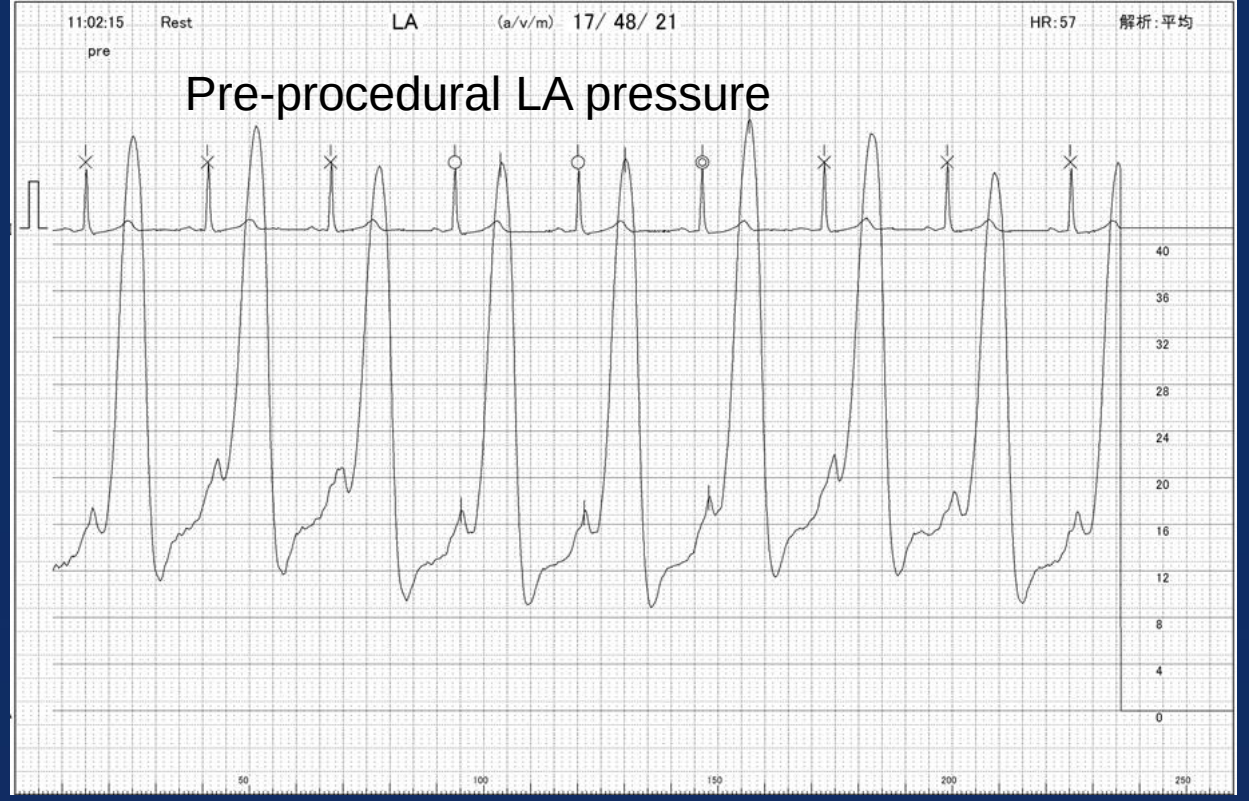
Independent re-grasping of posterior leaflet

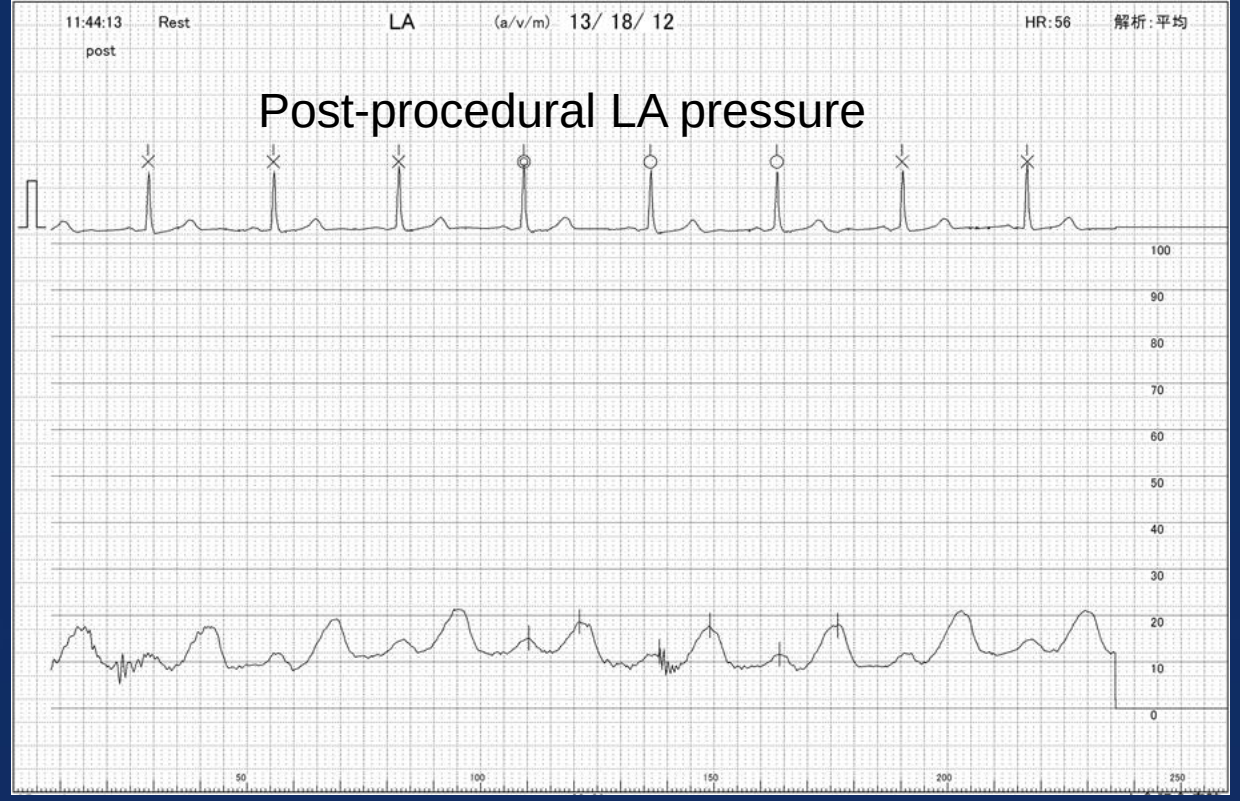


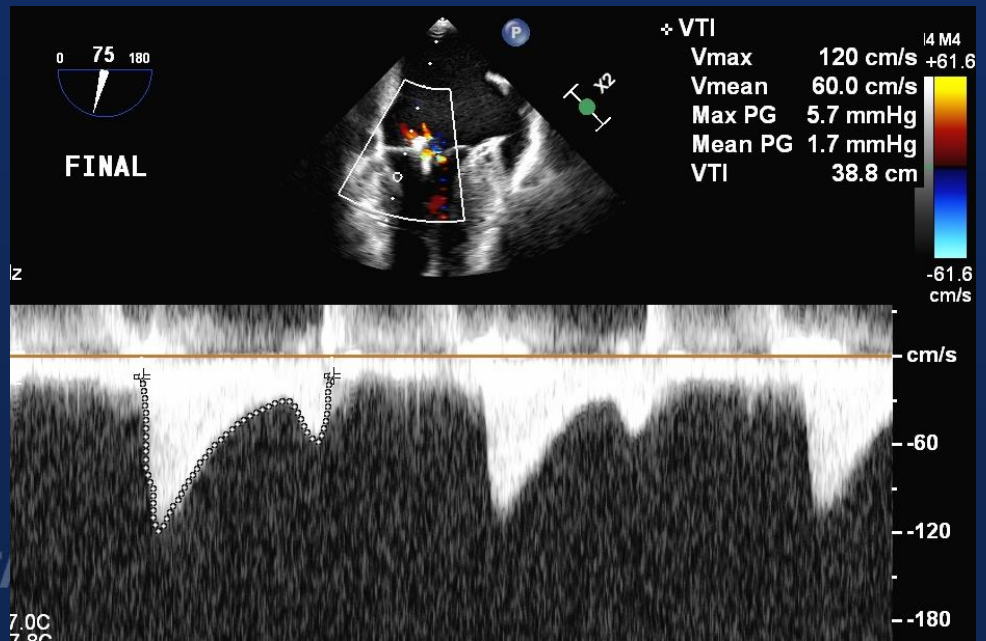

P
R
-54.1
cm/s
55 bpm

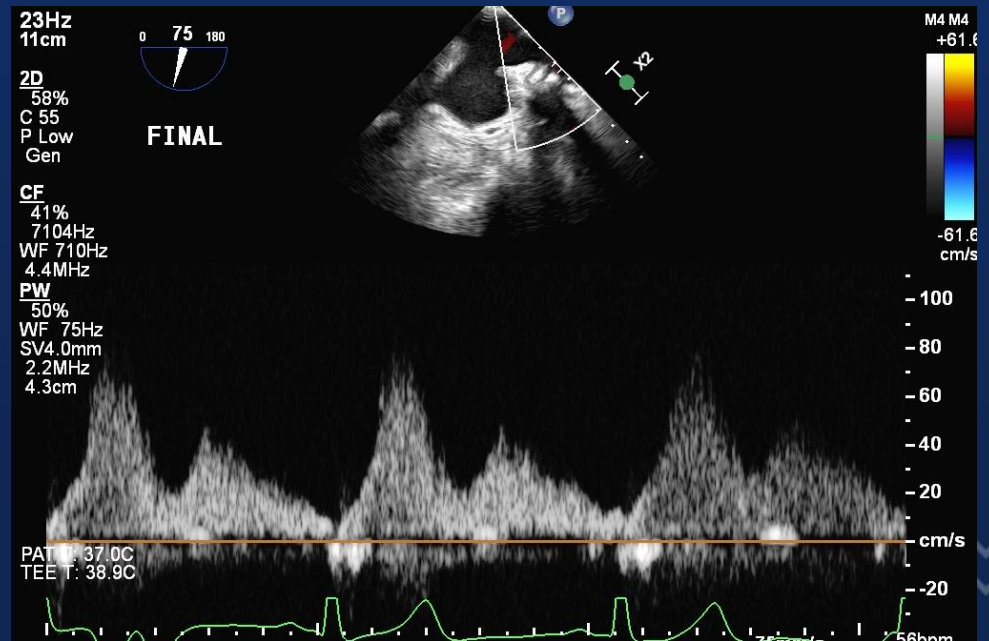
Final result




11:02:15 Rest LA (a/v/m) 17/ 48/ 21 HR:57 解析:平均
pre
Pre-procedural LA pressure


11:44:13 Rest LA (a/v/m) 13/ 18/ 12 HR:56 解析:平均
post
Post-procedural LA pressure


FINAL
VTI
Vmax 120 cm/s
Vmean 60.0 cm/s
Max PG 5.7 mmHg
Mean PG 1.7 mmHg
VTI 38.8 cm
-61.6 cm/s
cm/s
-60
-120
-180


23Hz
11cm
2D
58%
C 55
P Low
Gen
CF
41%
7104Hz
WF 710Hz
4.4MHz
PW
50%
WF 75Hz
SV4.0mm
2.2MHz
4.3cm
FINAL
-61.6 cm/s
100
80
60
40
20
cm/s
-20
TEE T: 38.9C

Conclusion

1) We experienced the first PASCAL Ace implantation for P2 lateral prolapse in Japan.
2) Guide sheath was excellent to penetrate the access site and septum because of the seamless structure of the outer and inner sheath.
3) Pascal system had an ergonomic handle to manipulate in procedure.
4) Although there are some differences, structure is like that of the preceding product, It is also expected that the learning curve would be faster due to familiarity with treatment techniques.
5) Compared with preceding product, in PASCAL, MV area loss would be less because of the spacer, and the device number would be saved due to the width of the paddle.