Cath Lab Set-up for MitraClip
: Puncture to Close

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Center Preparation for MitraClip

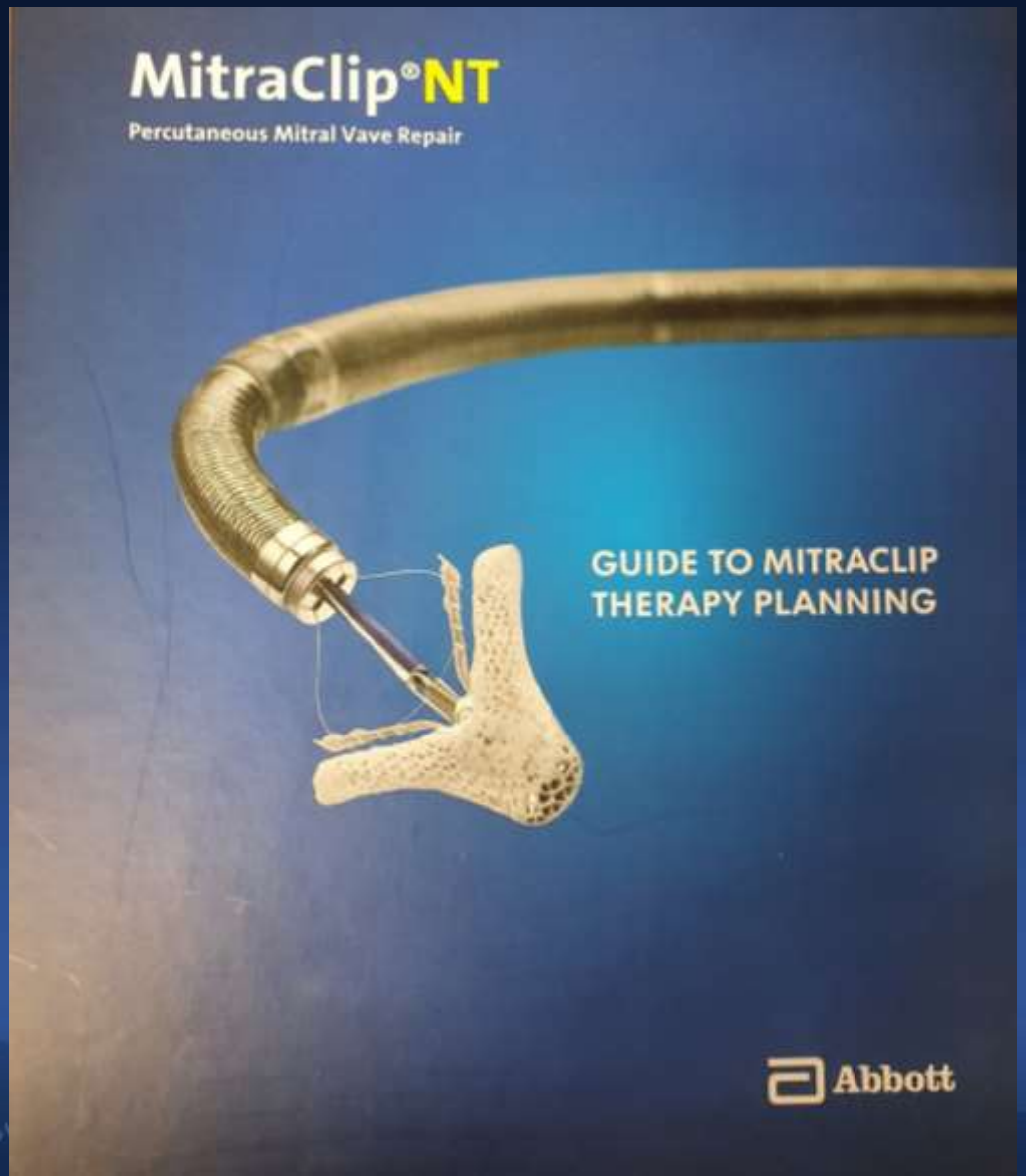
Make a Team !

- 2 Interventional Cardiologists
- 1~2 Echocardiography Specialists
- Nurse
- Technician
- Administrative Assistant

Education Course

- Patient screening Training → Screening
- Echo Training
- Foundation Training 1.5 일
- Visit Other Centers (Not mandatory)
- Dry Run : Check the Cath lab status
- Proctoring : Not mandatory

Foundation Meeting



Agenda of Foundation training for MitraClip (2019 OCT 12th~13th)

Address: 서울특별시 강남구 언주로 337, 동영문화센터 4층 에보트
Asan Medical Center

• Speakers : Simon Bain

Day 1 (Oct-12th-Sat)

time	Contents	Duration	Speaker
10:00~10:05	Opening Remarks	5	Yumi Choi
10:05~10:20	MitraClip NT Local approval Status, Lauching Status Update	15	Yumi Choi
10:20~11:50	MitraClip NT Therapy Introduction	15	Simon Bain
	MitraClip NT TEE and TTE Screening & MitraClip NT Indications Quick Review	15	Simon Bain
	MitraClip NT Device Overview / Terminology	45	Simon Bain
11:50~12:00	Q&A	10	
12:00~13:00	Lunch	60	
13:00~13:40	MitraClip NT System preparation	40	Simon Bain
13:40~14:25	Hands-on (1)	45	All
14:25~14:40	Break	15	
14:40~15:10	MitraClip NT Procedural Overview (2) Transseptal Crossing	30	Simon Bain
15:10~15:30	Hands-on (2)	20	All
15:30~16:10	MitraClip NT Procedural Overview (3) Guide Insertion, Clip Delivery System, Steering, Grasping & Leaflet Insertion	40	Simon Bain
16:10~17:00	Hands-on (3)	50	All

Day 2 (Oct-13th-Sun)

time	Contents	Duration	Speaker
09:00~09:10	Day1 review	10	Simon Bain
09:10~10:50	MitraClip NT Procedural Overview (4) Multiple Clip Implants, Deployment, Clip Retraction, Removal, Post-Case Care	50	Simon Bain
	Hands-on (4)	50	All
10:50~11:50	Situational Steering	30	Simon Bain
	Hands-on (5)	30	All
11:50~12:00	Break	10	
12:00~13:00	Procedure video (Lunch)	60	
13:00~13:30	Trouble shooting Explant implanted clip	30	Simon Bain
13:30~13:40	Q & A	10	All
13:40~13:45	Closing remarks	5	Yumi Choi

관련 문의 사항은 아래 담당자에게 부탁드립니다.
최윤미 대리 yumi.choi@abbott.com / 010-2176-1867

Administrative Works

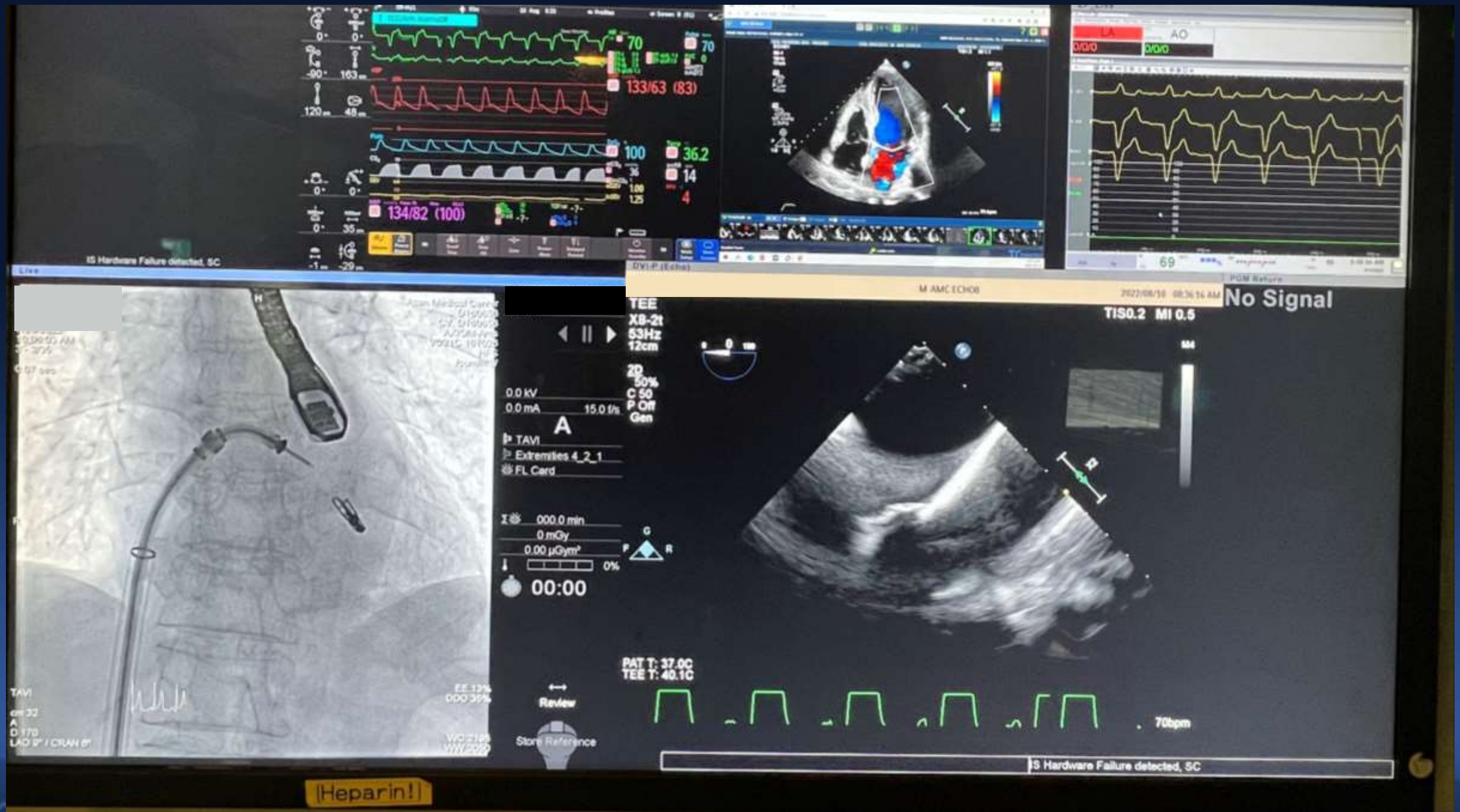
- 신의료기술, 전액 비보험
- 병원 내 시술 / 장비 코드 세팅 + 시술료 책정
- 동의서 제작
- 식약처 PMS IRB 승인
- 첫 시술 후 심평원 보고
- 신의료기술 성적 점검 (아산병원 자체 점검)

Heart Valve Team Meeting

- Surgical Risk Evaluation
- Discuss for the Best Treatment Option
- Prepare the Surgical Back-up

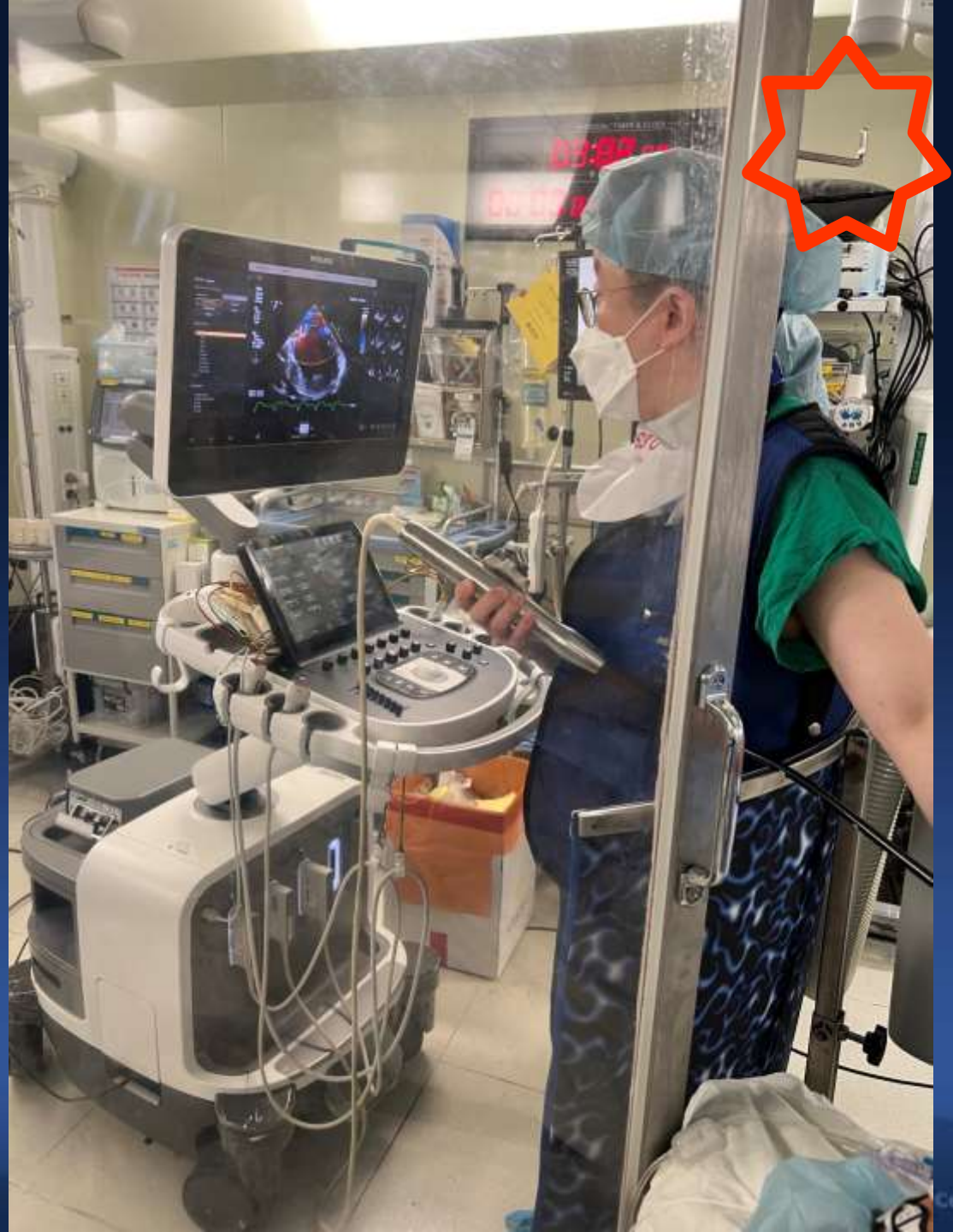
Cath Lab Set-up for MitraClip


MAQUET
No Signal


133/63 (83)
134/82 (100)
36.2
IS Hardware Failure detected, SC
M AMC ECHO8
No Signal
TEE
XB-2t
53Hz
12cm
TIS0.2 MI 0.5
0.0 kV
0.0 mA
15.0 f/s
A
TAVI
Extremities 4_2_1
FL Card
000.0 min
0 mGy
0.00 µGym²
00:00
PAT T: 37.0C
TEE T: 40.1C
70bpm
Review
Store Reference
IS Hardware Failure detected, SC
|Heparin!|


PHILIPS


MODUTEC



Radiation Protection

Reduce C-arm angle
Reduce frame rate

Sendai Kousei Hospital

Keimyung Univ.
Donsan Medical Center

Sejong General Hospital

Seoul National Univ Hospital

Procedure

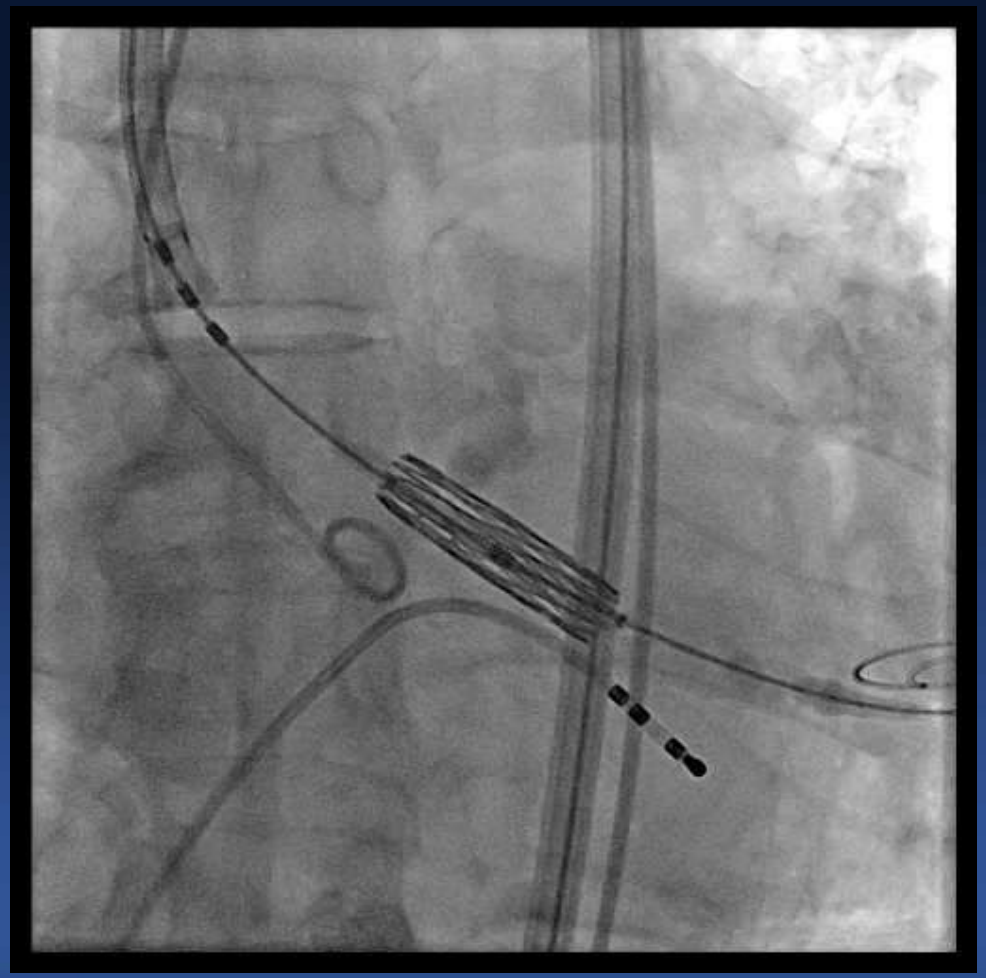
Device Preparation

- SL1 sheath
- Brockenbrough needle
- Stiffwire
- Bovie catheter (if needed)
- Femoral dilator (septal dilator if needed)
- 2 Normal saline 1L bag + Pressure Bags
- 5 3-way stopcock
- 1 Extension tube
- Stabilizer, Support plate

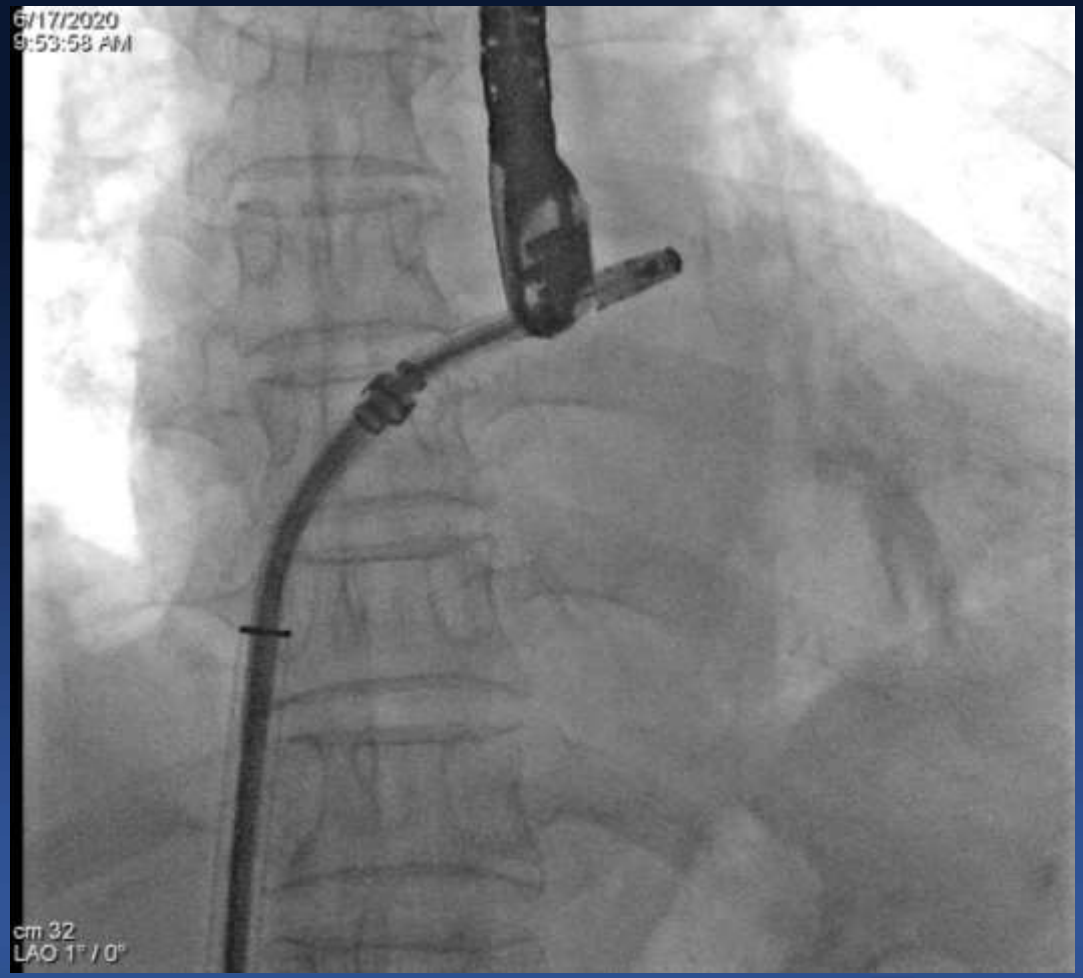
Mitraclip Procedure

1. Prepare the device
2. Femoral vein puncture
3. Transseptal puncture
4. Advancement of the clip into LA
5. Steering & positioning of the clip above the MV
6. Clip adjustment (trajectory & orientation)
7. Advancing the clip into the LV
8. Grasping of the leaflets & TEE assessment
9. Clip detachment & assessment
10. Consider 2nd / 3rd clip or finish the procedure

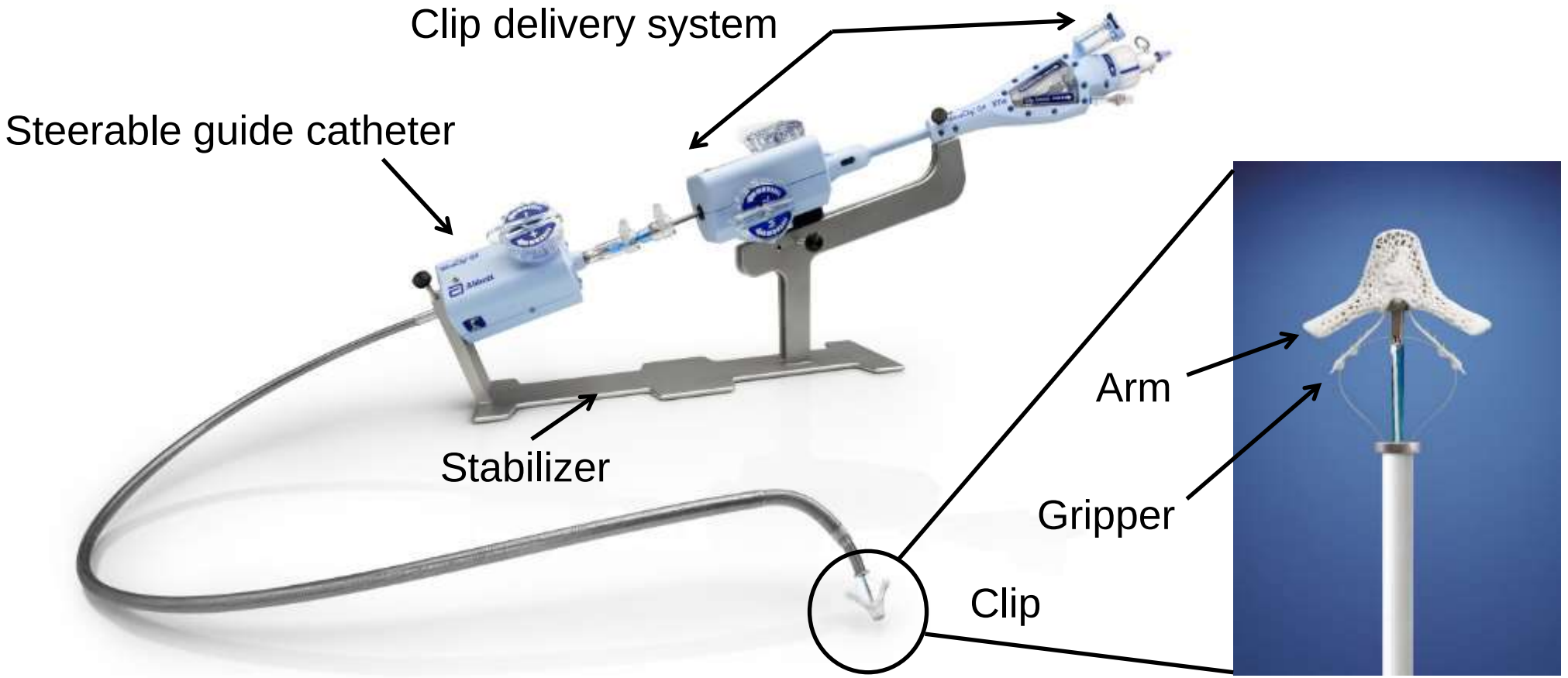
No Definite Fluoroscopic Structure in Mitral Valve



vs.

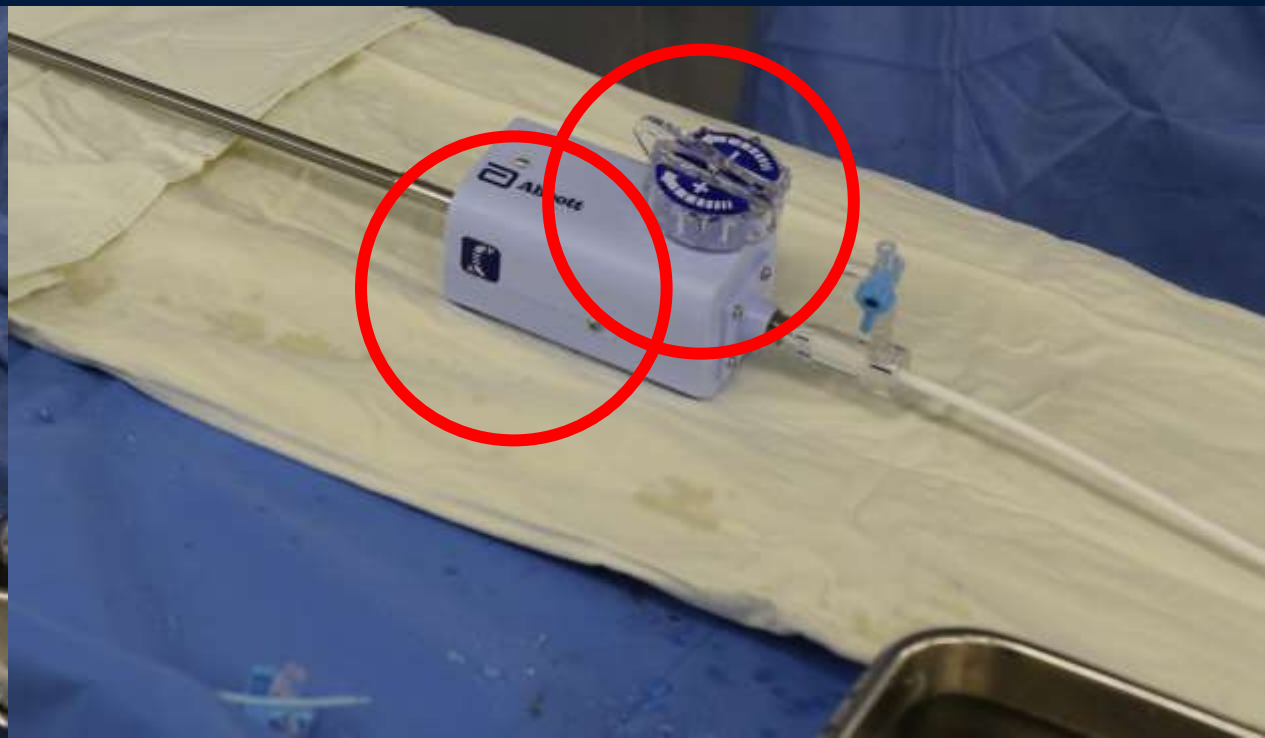


MitraClip System



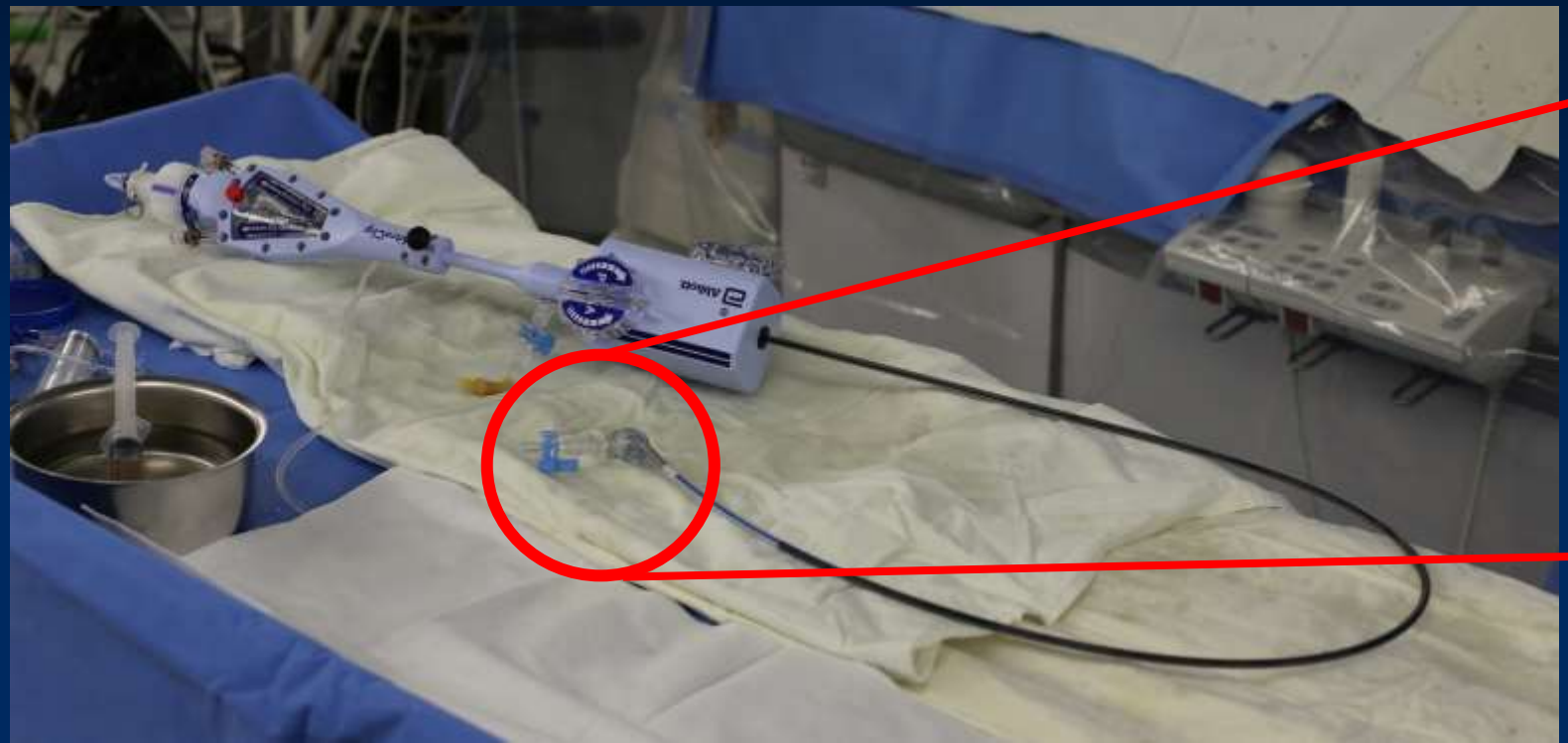
Steerable Guide Catheter

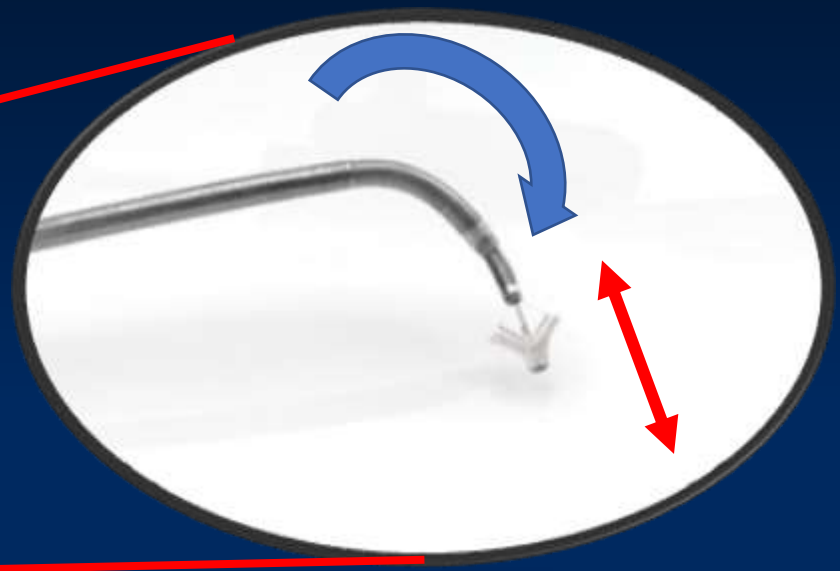
Working Length	800 mm
Catheter Shaft Inner Diameter	5.5 mm (16 Fr)
Catheter Shaft Outer Diameter	8.1 mm (24 Fr)
Catheter Distal Tip Diameter	7.7 mm (23 Fr)
Catheter Septal Crossing Diameter	7.4 mm (22 Fr)



Clip Delivery System

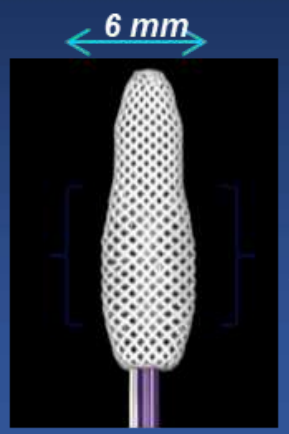
Extended Length (from Sleeve curved at 90 degrees)	45mm – 70mm
Catheter Shaft Outer Diameter	3.4 mm (10Fr)
Steerable Sleeve Working Length	1095 mm
Catheter Distal Shaft Outer Diameter	5.3 mm (16Fr)





Mitraclip™ G4 : Various Length & Width of Clips

50% wider in the grasping area

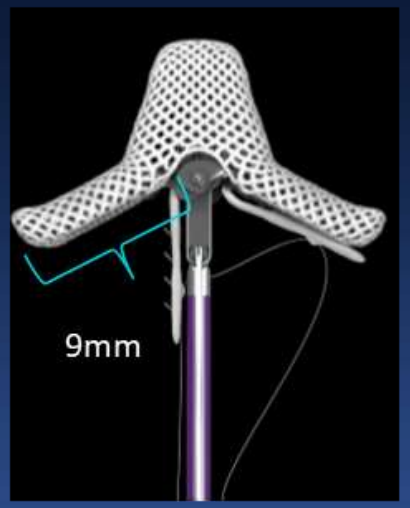


50% wider in the grasping area

NT/XT NTW/XTW

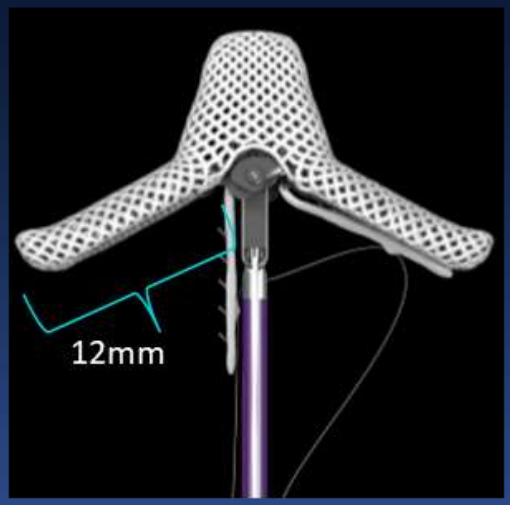
MitraClip™ G4

4 Clip sizes



17 mm at 120 degrees
20 mm at 180 degrees

NT/NTW

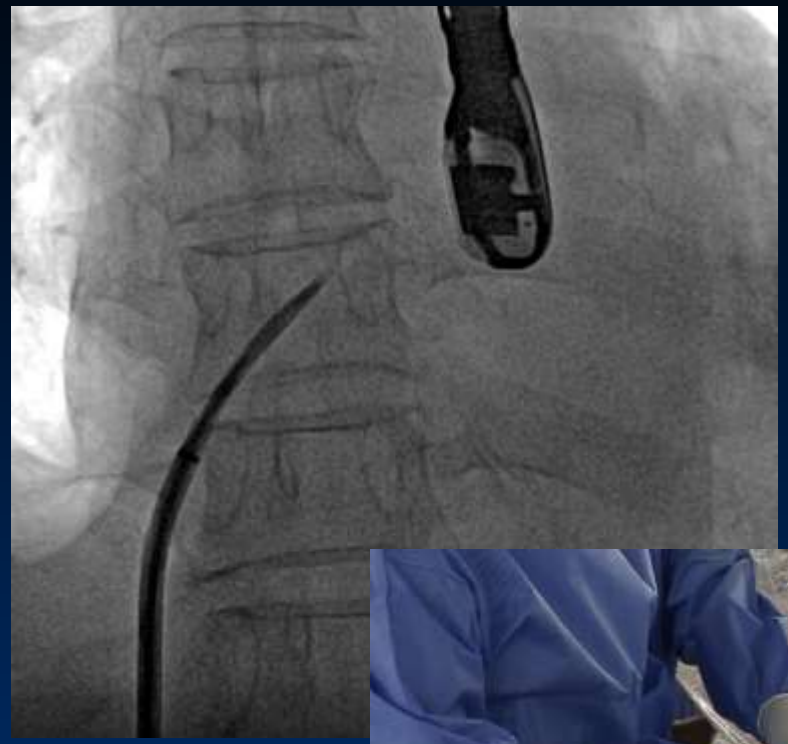


22 mm at 120 degrees
25 mm at 180 degrees

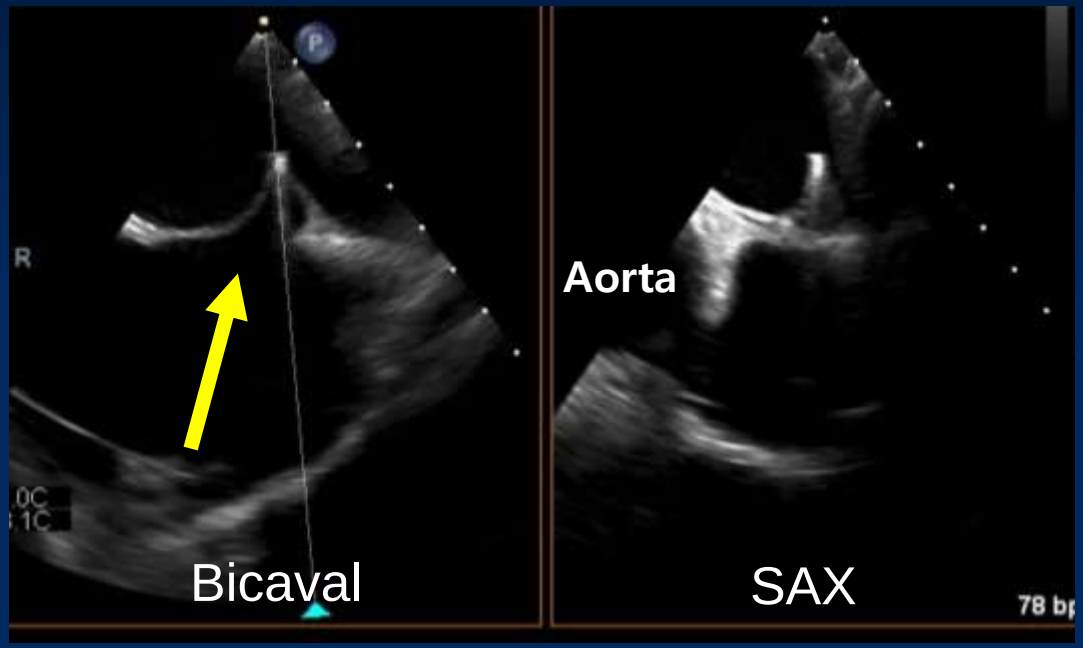
XT/XTW

Rt. Femoral Venous Puncture (USG-guided)
: Pre-close (Perclose 1 or 2) or Not

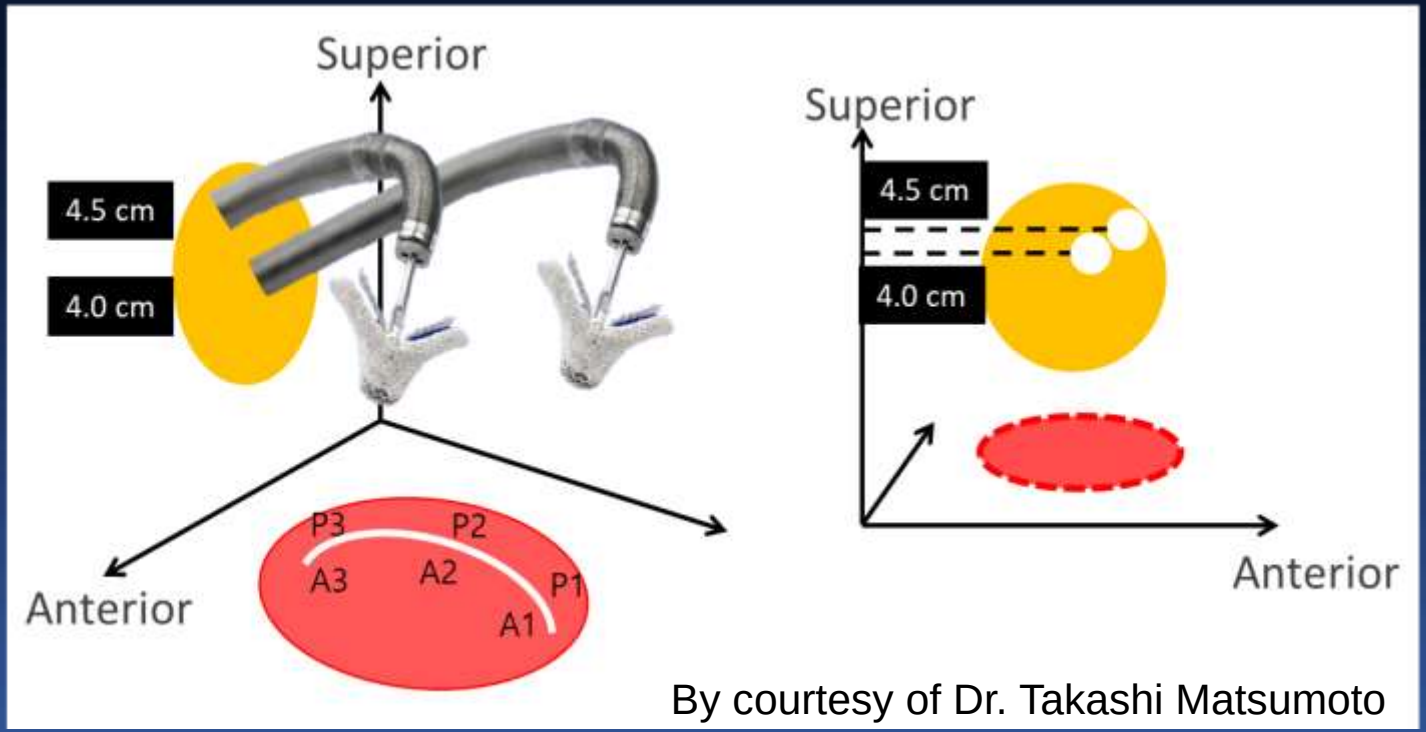
Trans-septal Puncture



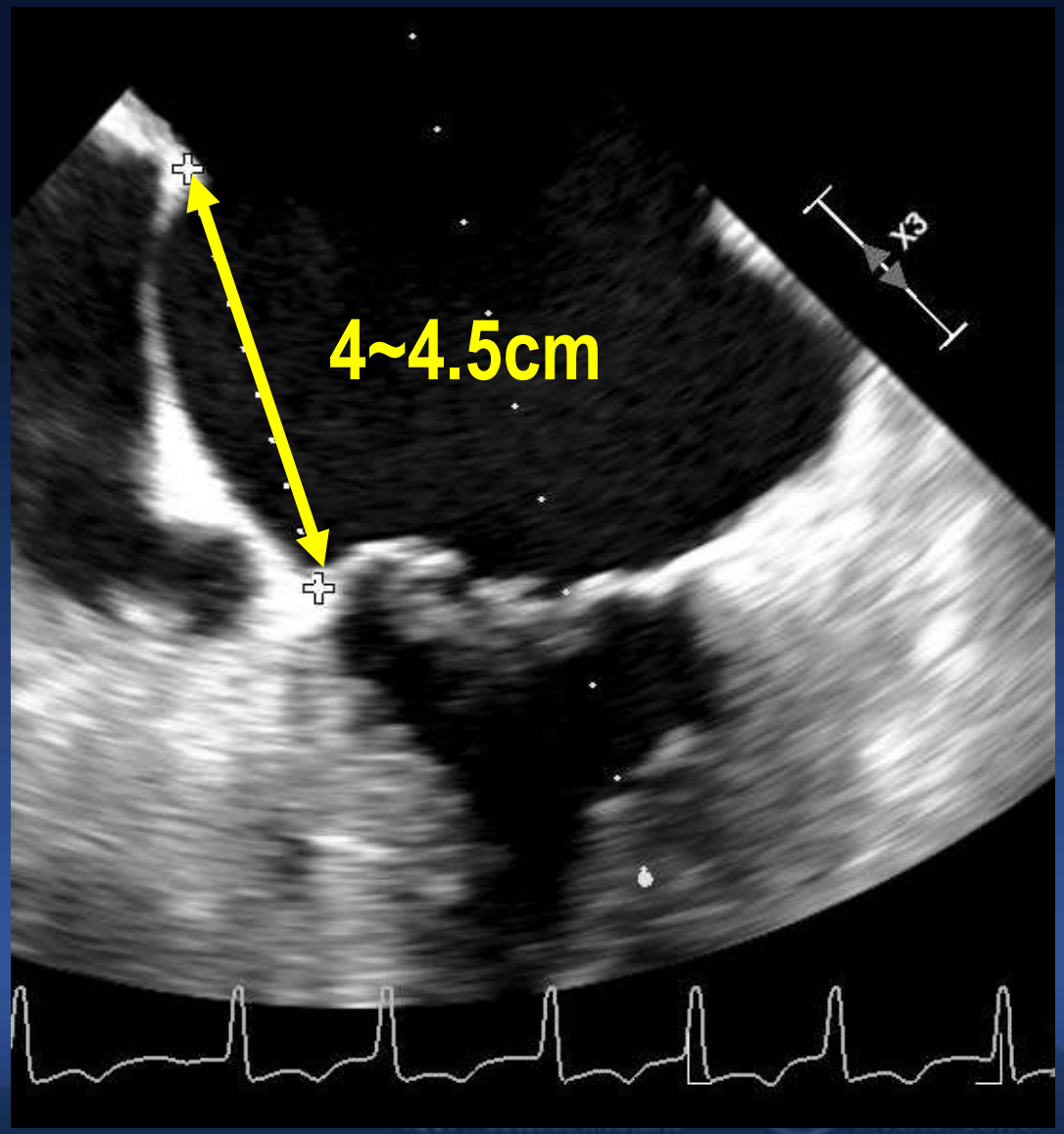
- SL1.0 sheath + BRK (RF needle)
- Tenting at posterior/mid-superior aspect of fossa ovalis
- We used a Bovie for safe & stable puncture.
- Puncture from 40-45 mm from mitral valve annulus
- Heparinization & ACT monitoring per 20 min after puncture



Septal Puncture at Appropriate Position is No.1 Priority !!!
(Prefer superior & posterior)

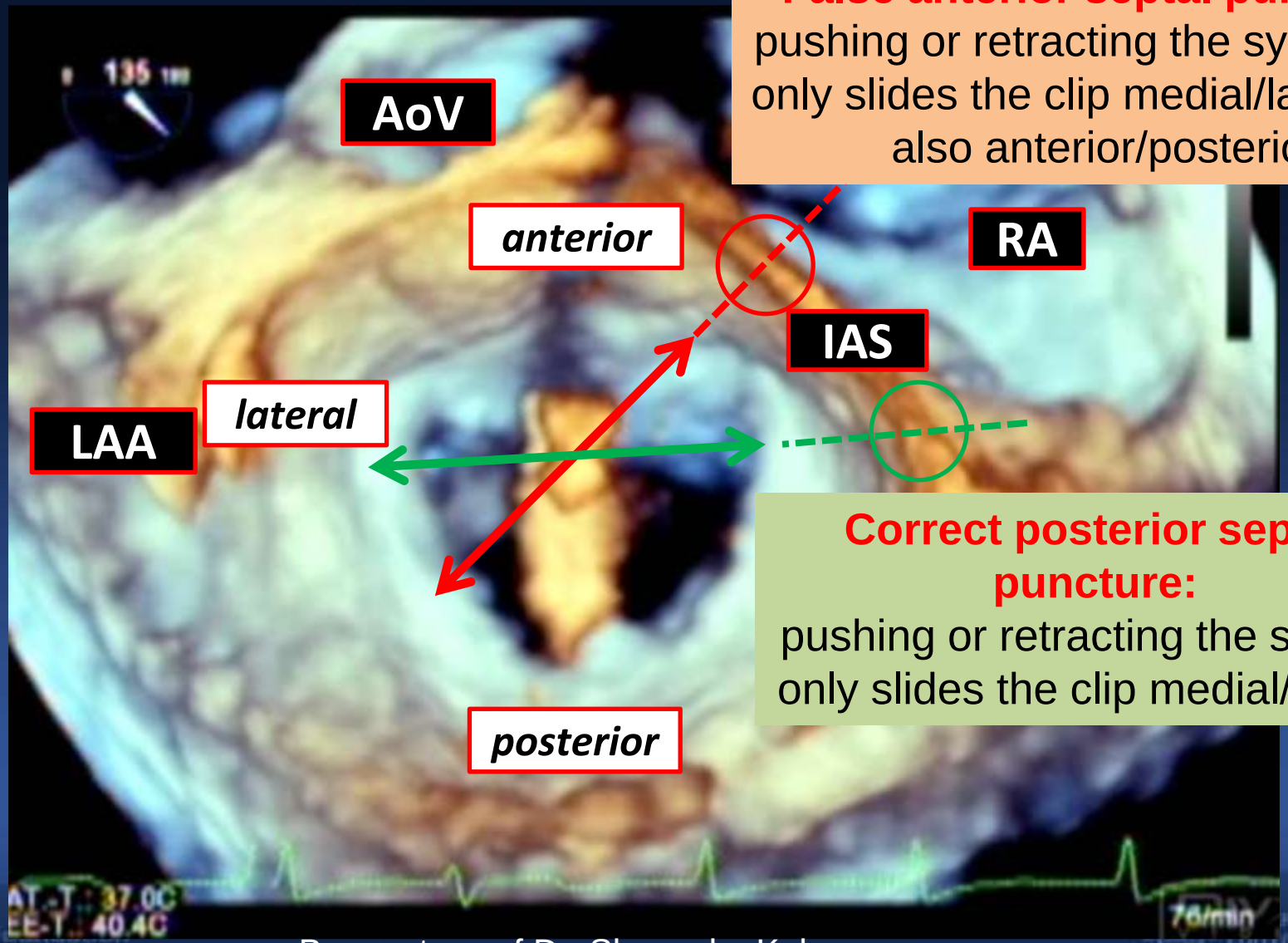


By courtesy of Dr. Takashi Matsumoto



Why Posterior Puncture?

False anterior septal puncture:
pushing or retracting the system not only slides the clip medial/lateral but also anterior/posterior



Correct posterior septal puncture:
pushing or retracting the system only slides the clip medial/lateral

By courtesy of Dr. Shunsuke Kubo

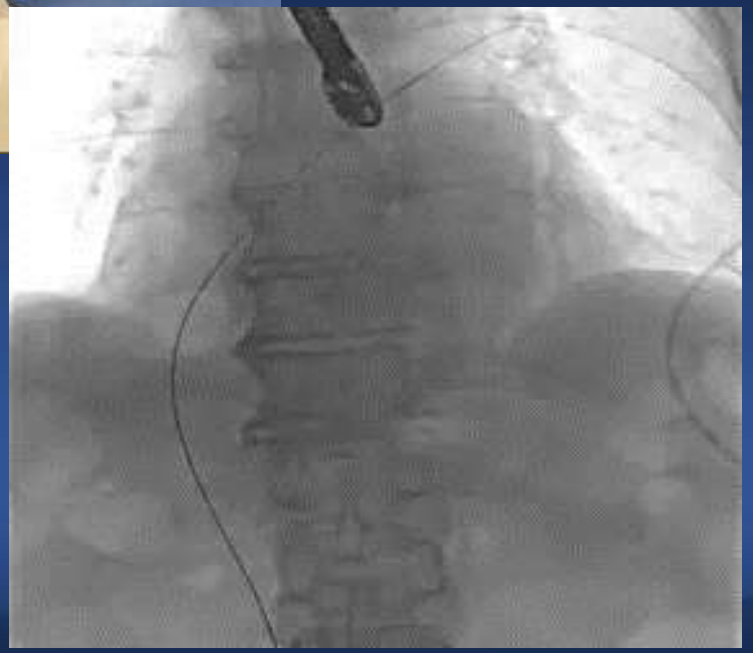
Steerable Guide Catheter – Dilator prep

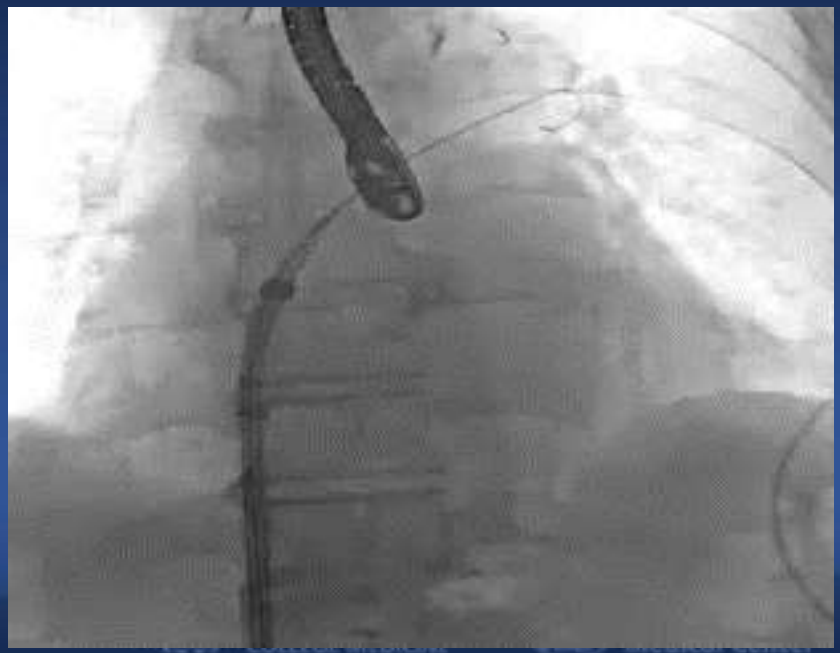
Steerable Guide Catheter – Valve Function Check

Steerable Guide Catheter – Remove Air from Everywhere

Steerable Guide Catheter – Knob Function Check

Steerable Guide Catheter into LA





CDS Preparation – Remove Air from Everywhere

CDS Preparation – Remove Air from Everywhere

Remove Air & Check Knob / Clip Function

Clip Preparation

Clip Delivery System / Clip into SGC

Clip Delivery System / Clip into SGC

Clip Delivery System / Clip into LA

- Gently advance under Fluoroscopy / TEE
- Avoid CDS to touch PV ridge or LA wall

To be Continued

In the Live case Tomorrow…