MITRAL VALVE REPLACEMENT WITH MECHANICAL PROSTHESIS BY VATS MINI-THORACOTOMY

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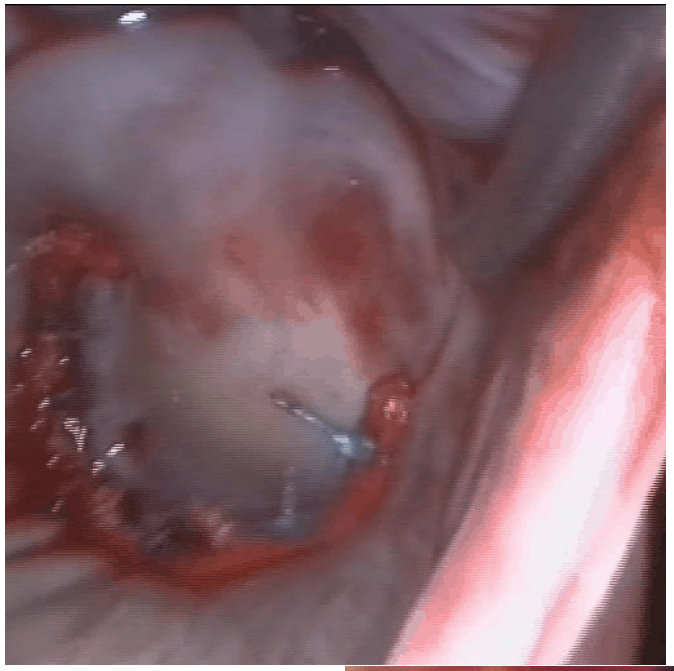
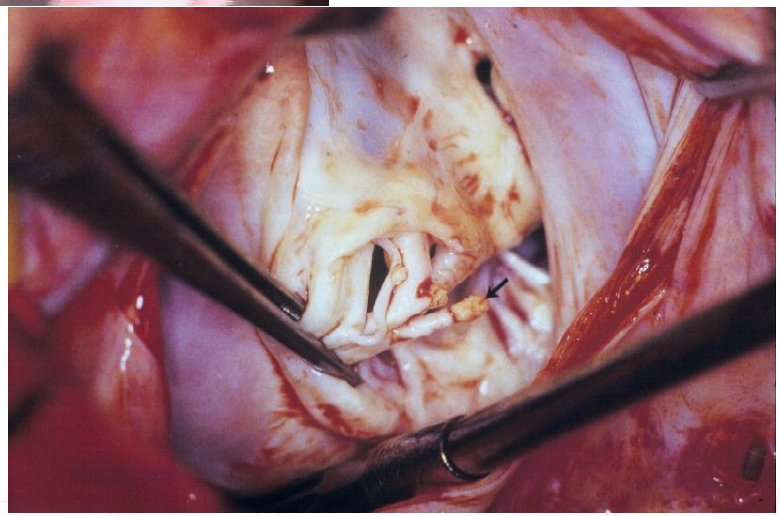
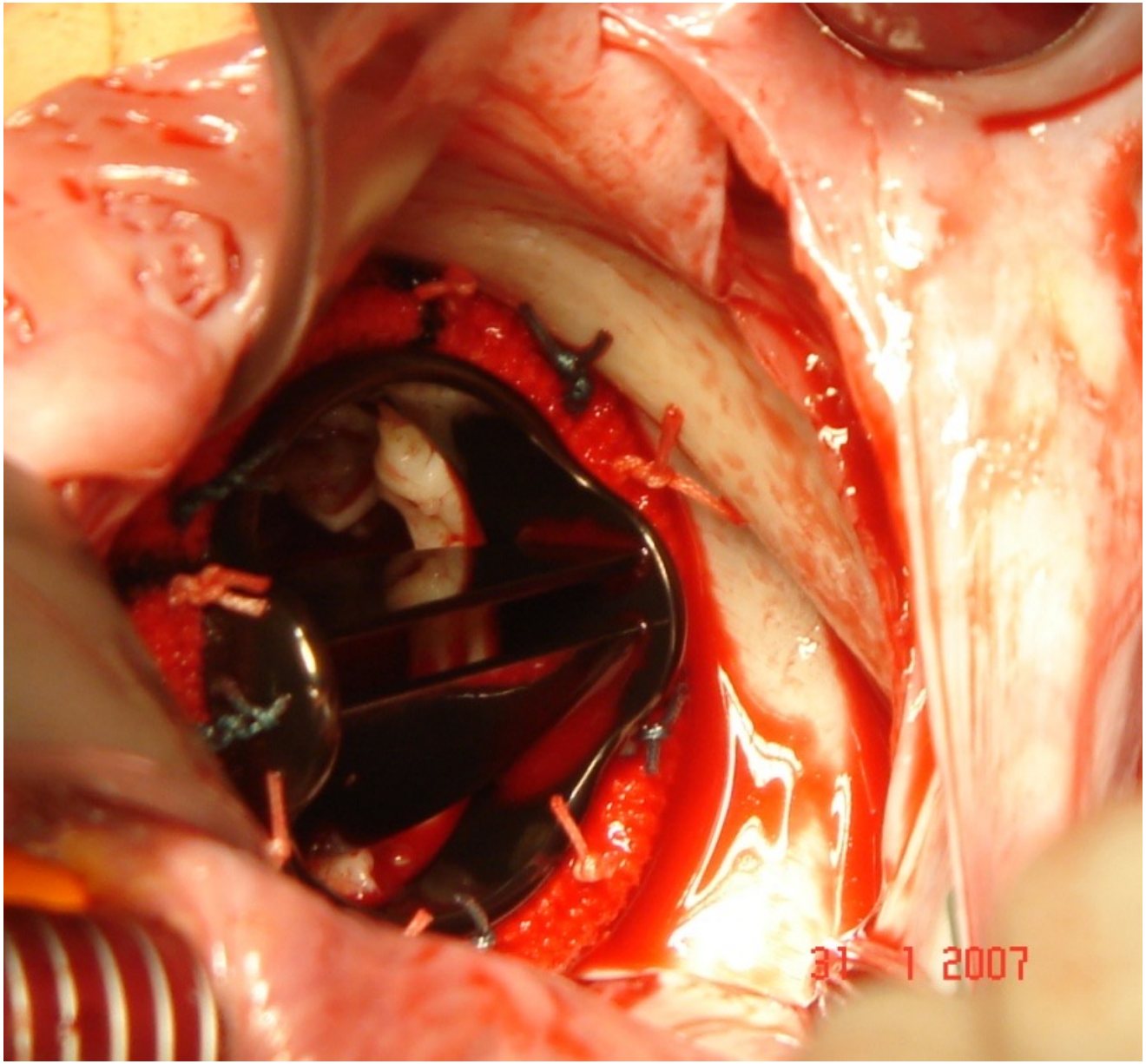
INTRODUCTION

Mitral valve disease is the most common valve heart disease.



MVP should be considerated for all most of mitral valve lesion.

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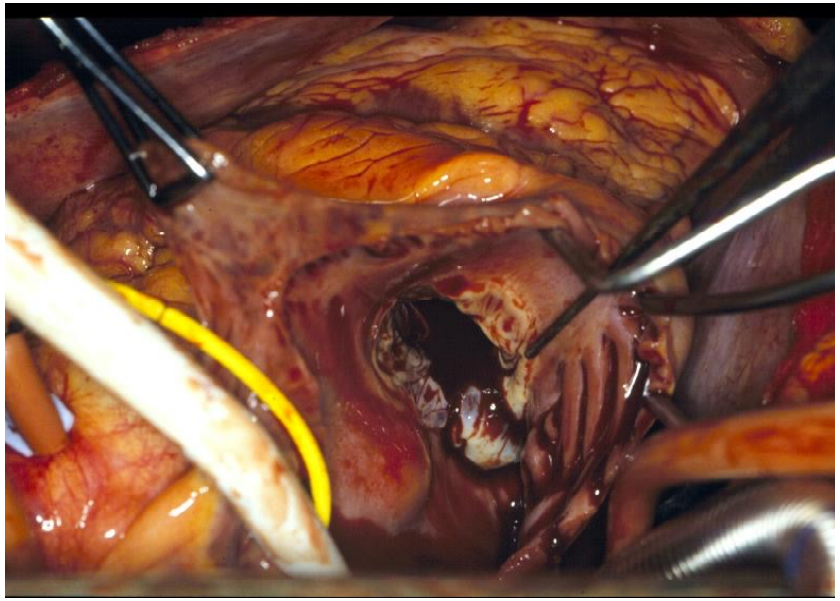
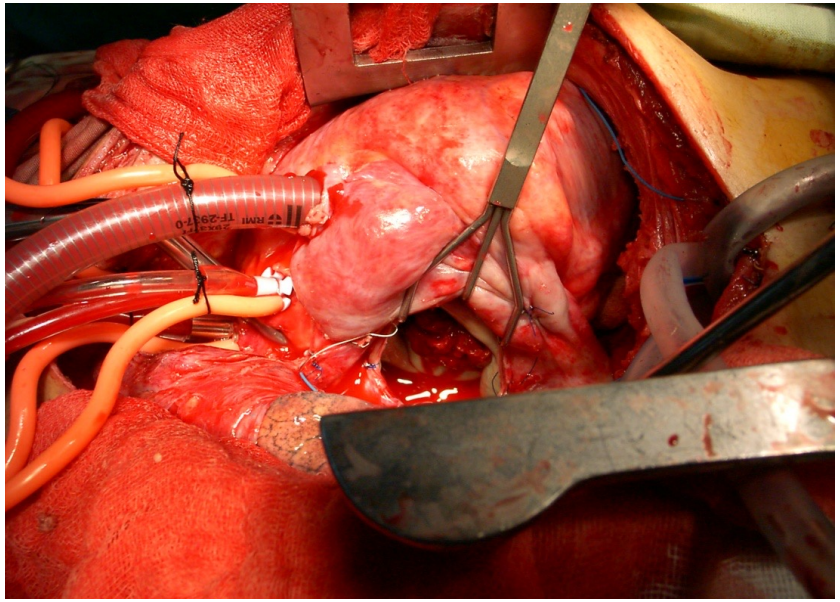




INTRODUCTION

- ***Opened heart surgery with CPB*** **is still a** ***standard treatment method*** **for MVR.**
- ***Median sternotomy*** **provides good operation exposure and still being used in many Heart centers.**

Incision Location	Sternotomy	Lower Stern.	Hemi- or Mini-sternotomy	Thoracotomy [Rib-spreading]	Port [Non-Rib-Spreading]	Port (Robot-assisted)
Incision Size[6]	12+ cm	8+ cm	5-8 cm	6-8 cm	4-6 cm	2-4 cm
Visualization	Direct	Direct	Direct	Direct	Videoscopic	Videoscopic

Minimal Incision Approach

INTRODUCTION

BENEFIT of MICS

- Cosmetic, minimize scar size.
- Less pain.
- Quick recovery.
- Reduce blood loss, sternal infection.

PROCEDURE

Double lumen intubation anesthesia.

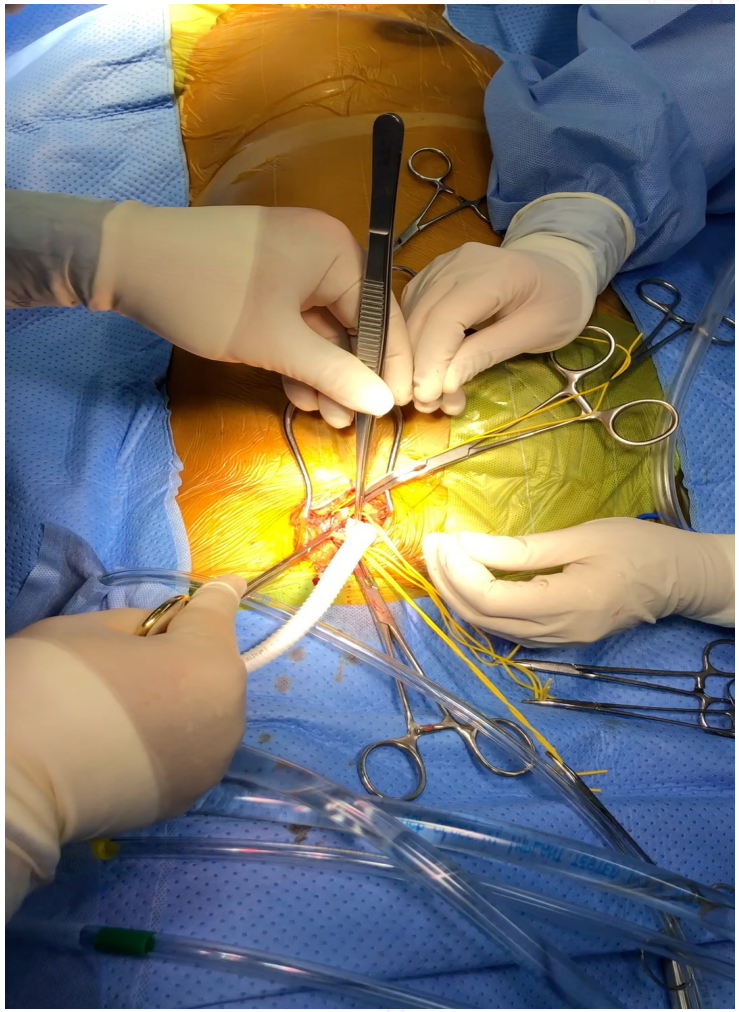
Invasive arterial pressure is placed on L radial artery.

CVP through L internal jugular vein.

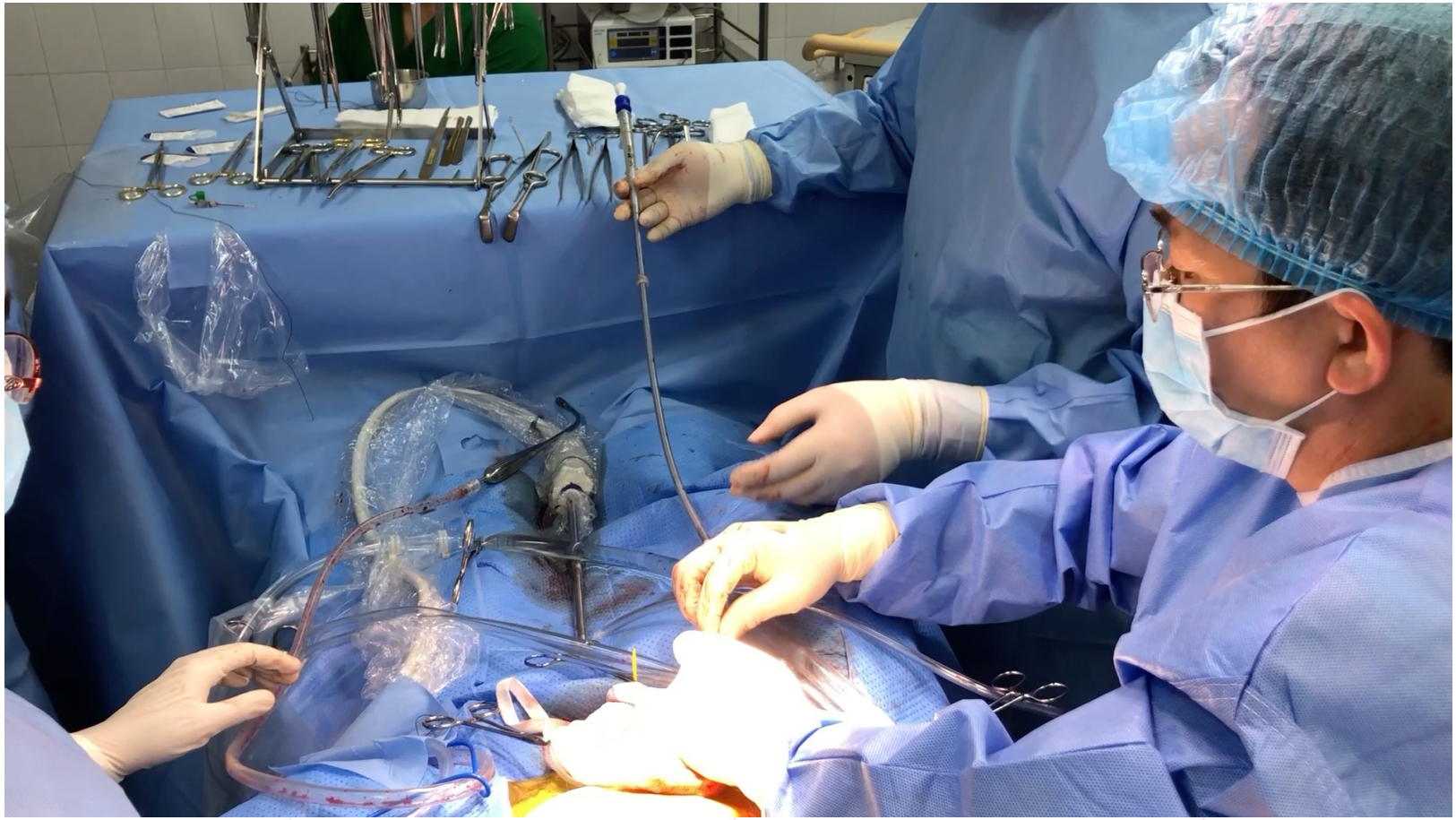
Stage catheter is placed on R jugular vein for SVC cannulation.

PATIENT POSITION

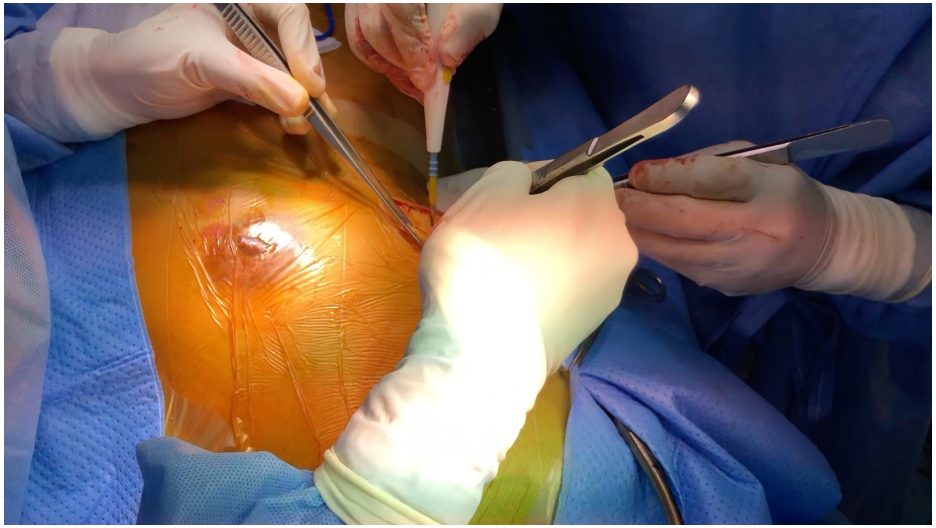
FEMORAL ARTERIAL CANNULATION

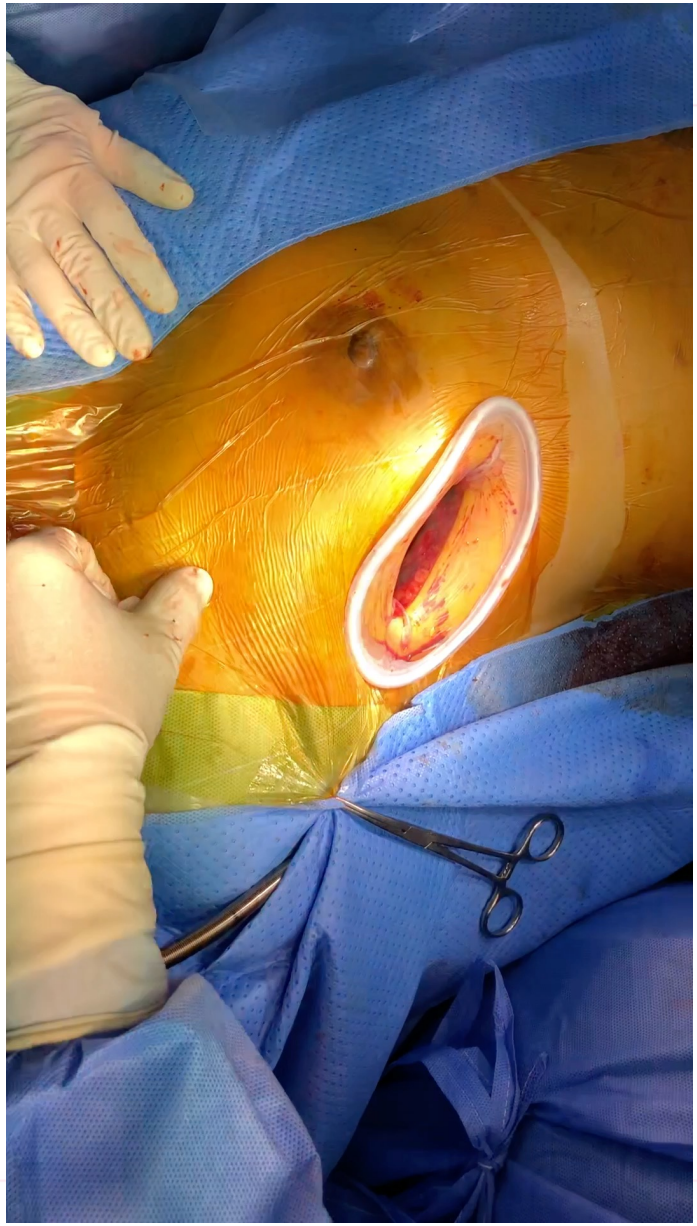


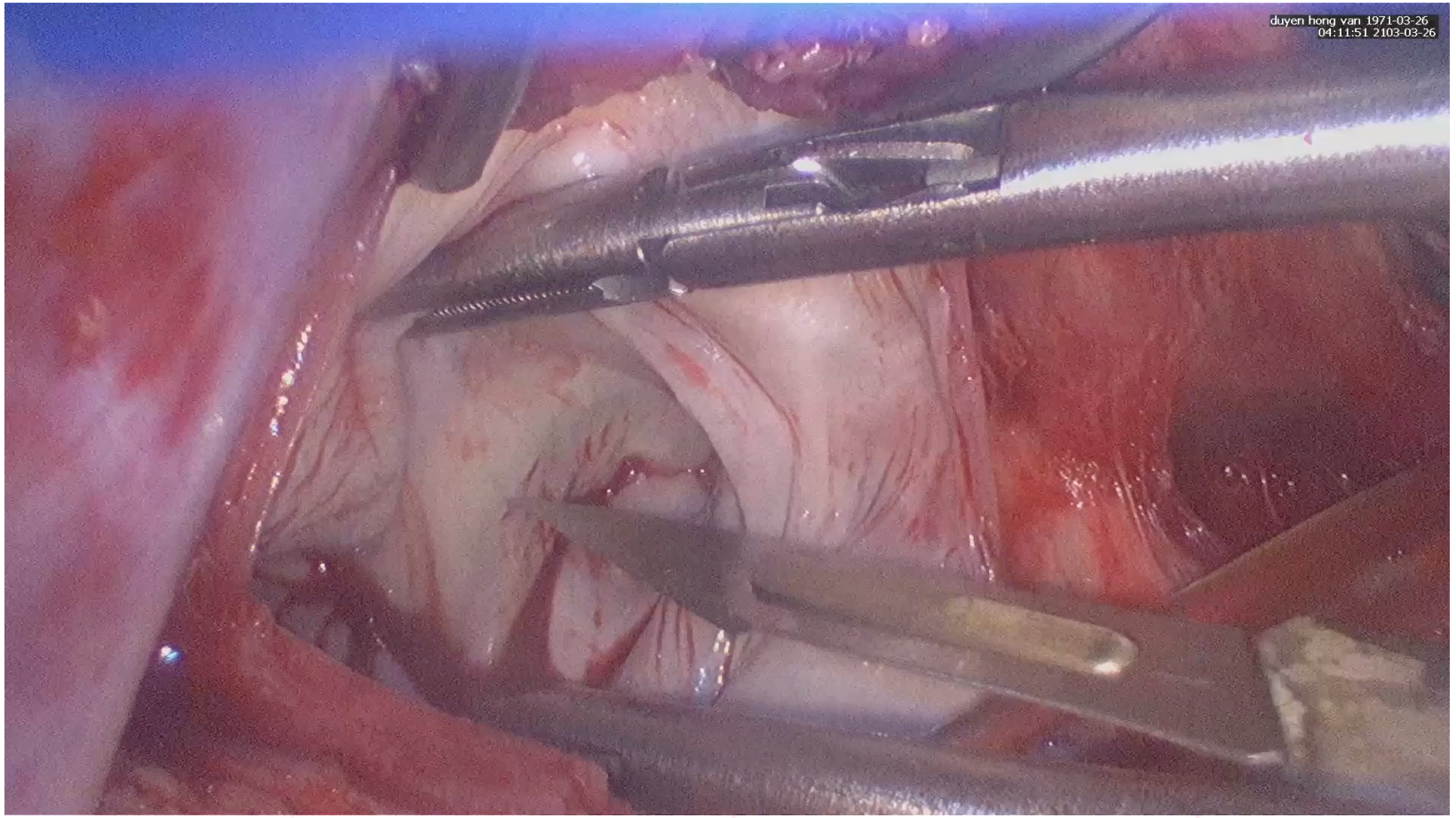
INFERIOR VENA CAVA CANNULATION



SUPERIOR VENA CAVA



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Thong Nhat Hospital data

- **2018: MICS ASD closure.**
- **12/2020 – 08/2023: 32 MICS MVR with mechanical prosthesis.**

	No Pt(32)	%
Mean age	44,2 ± 9,8 (25 – 62)	
Male	17	53,1%
Simple MVR	23	71,9%
MVR + TAP	05	15,6%
MVR + MAZE Procedure	04	12,5%

OPERATION DATA

	Mean (min.)	SD
Operation time	**332,4 (310-354)**	**11,5**
CPB time	**174,0 (57-206)**	**57,2**
Aortic cross clamp time	**102,3 (50-206)**	**40,4**

POST OPERATION DATA

	Mean (days)	SD
Hospitalization	12,5	2,8
ICU Stay	2,2	4,8

RESULTS

DEATH	0
Bleeding	01
Cardiac failure	02 1 case need ECMO for 2 days

CONCLUSION

- MICS MVR is safe and feasible.
- Operation, CPB and aortic cross clamp time are longer than classic operation.
- ICU and hospital stay are shorter.

THANK YOU

FOR YOUR ATTENTION