

A Tip for Direct Aortic Approach in TAVI with CoreValve®

# An Useful Tool: A Rigid Table Mount System

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# Disclosure of COI

Nobuyuki Komiyama is  
a consultant of Medtronic Japan.



# Introduction

## Alternative Access Sites for CoreValve<sup>®</sup> Implantation

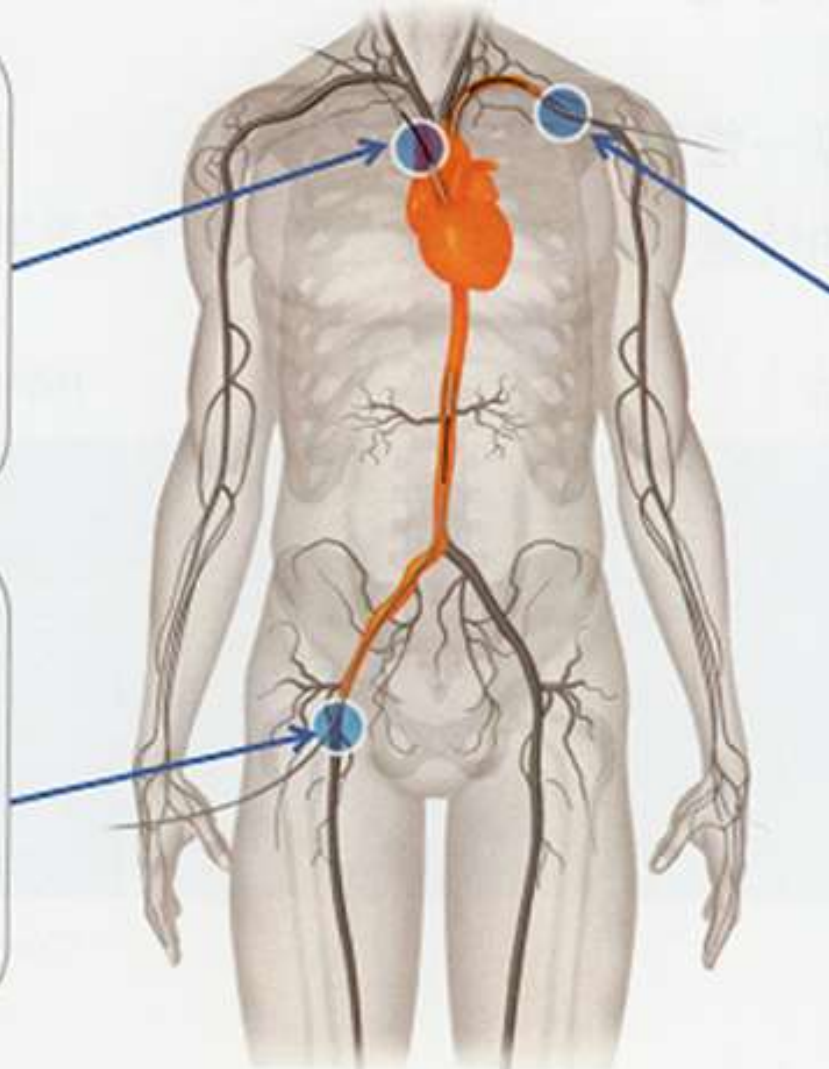
Direct Aortic



Subclavian



Ilio-Femoral

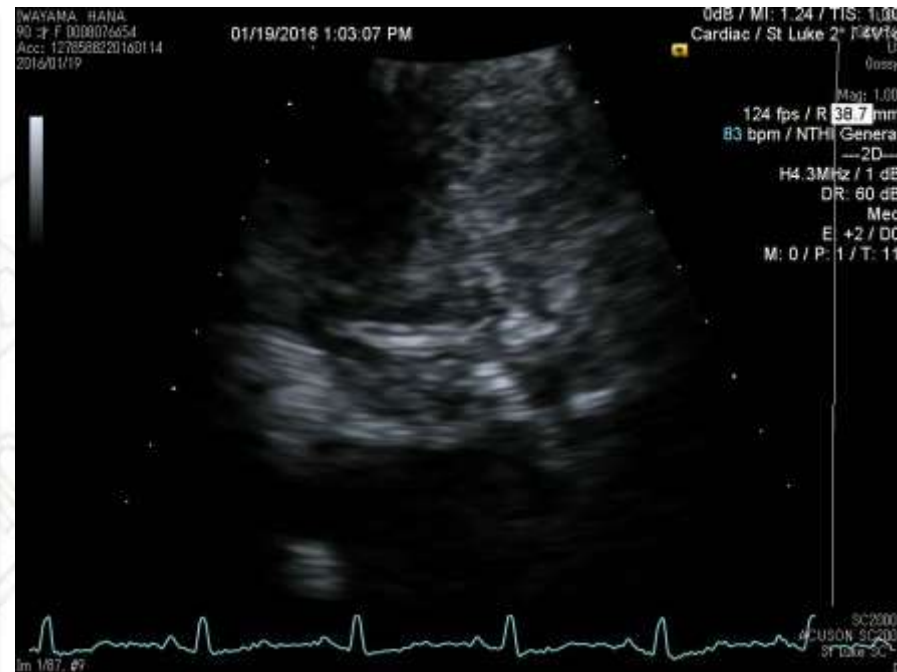
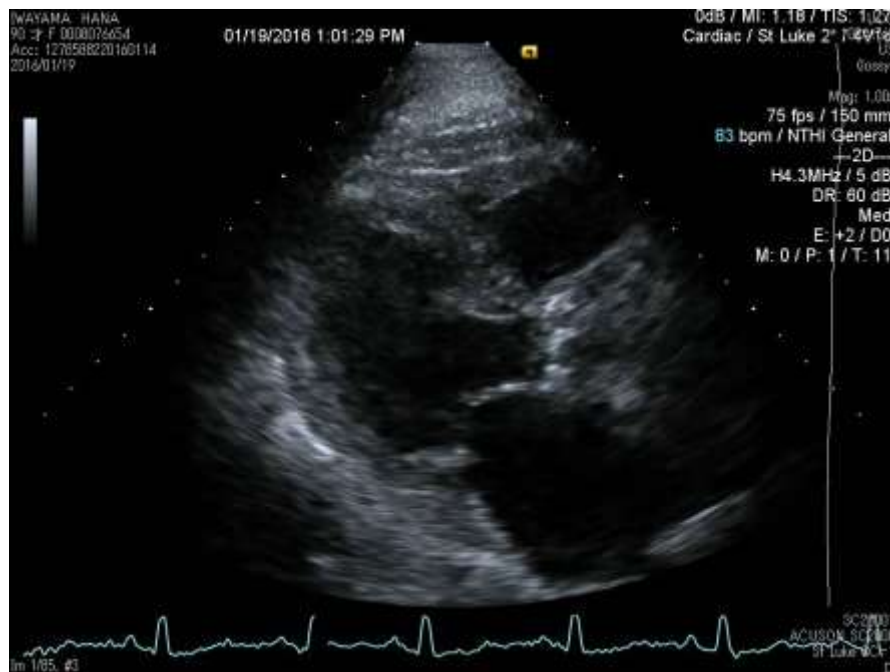


# Case

- An 90 year-old, female.
- She had suffered from severe aortic stenosis revealed when she was hospitalized due to heart failure and bronchopneumonia in March, 2014. Ten months later, she had syncope due to severe AS and then underwent emergent balloon aortic valvuloplasty. In January, 2016, we planned to perform TAVI.
- Comorbidities: Hx of PCI in LAD, Hypertension, Type 2 diabetes, Transient atrial fibrillation, Post total mastectomy (right)
- STS score 7.3 %
- Frailty: CSHA clinical frailty scale 5



# Transthoracic Echocardiograms

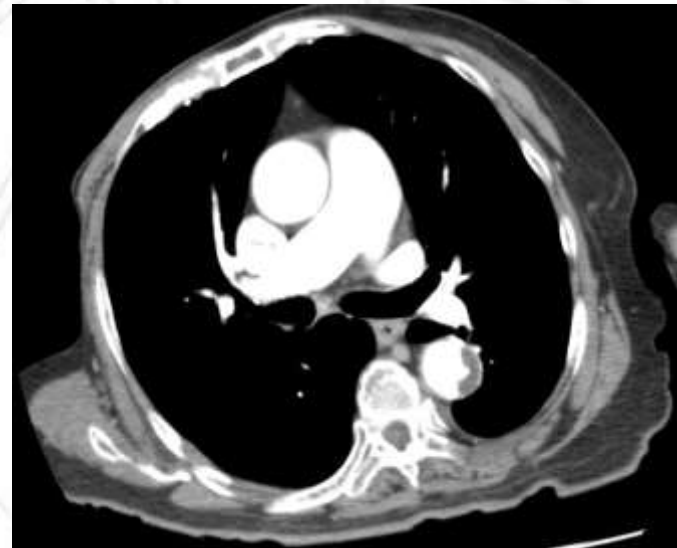
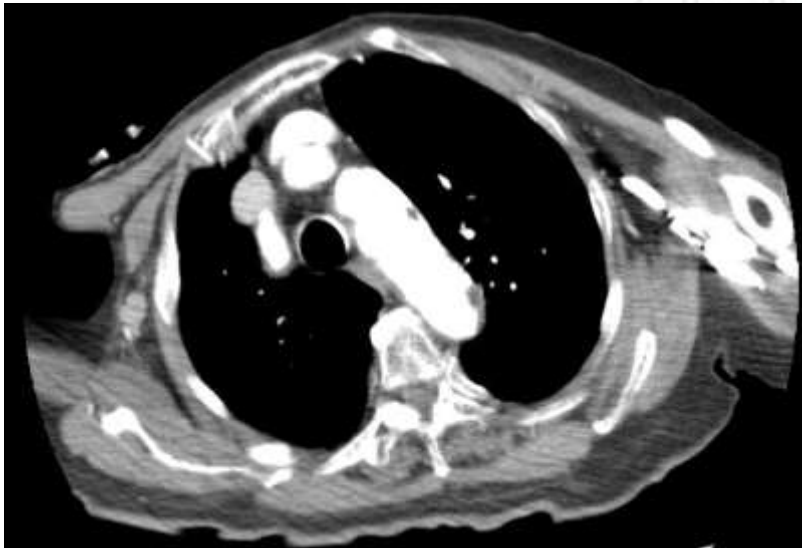
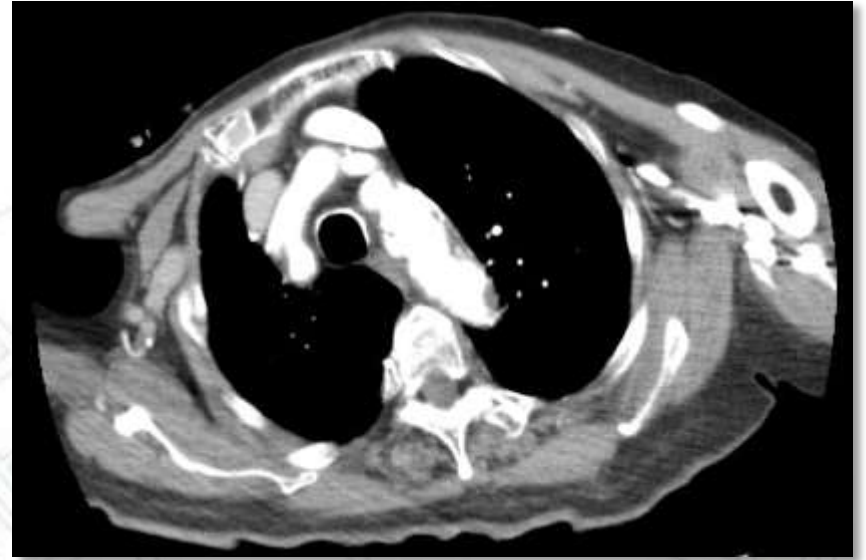
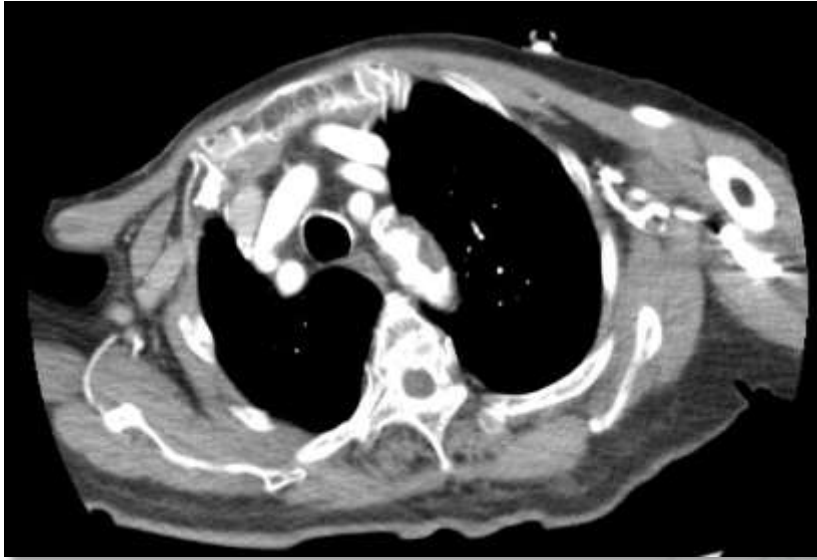


- Aortic valve area
- Mean pressure gradient
- Peak Velocity at AV

0.8 cm<sup>2</sup>  
40 mmHg  
4.2 m/sec



# “Shaggy” Aorta

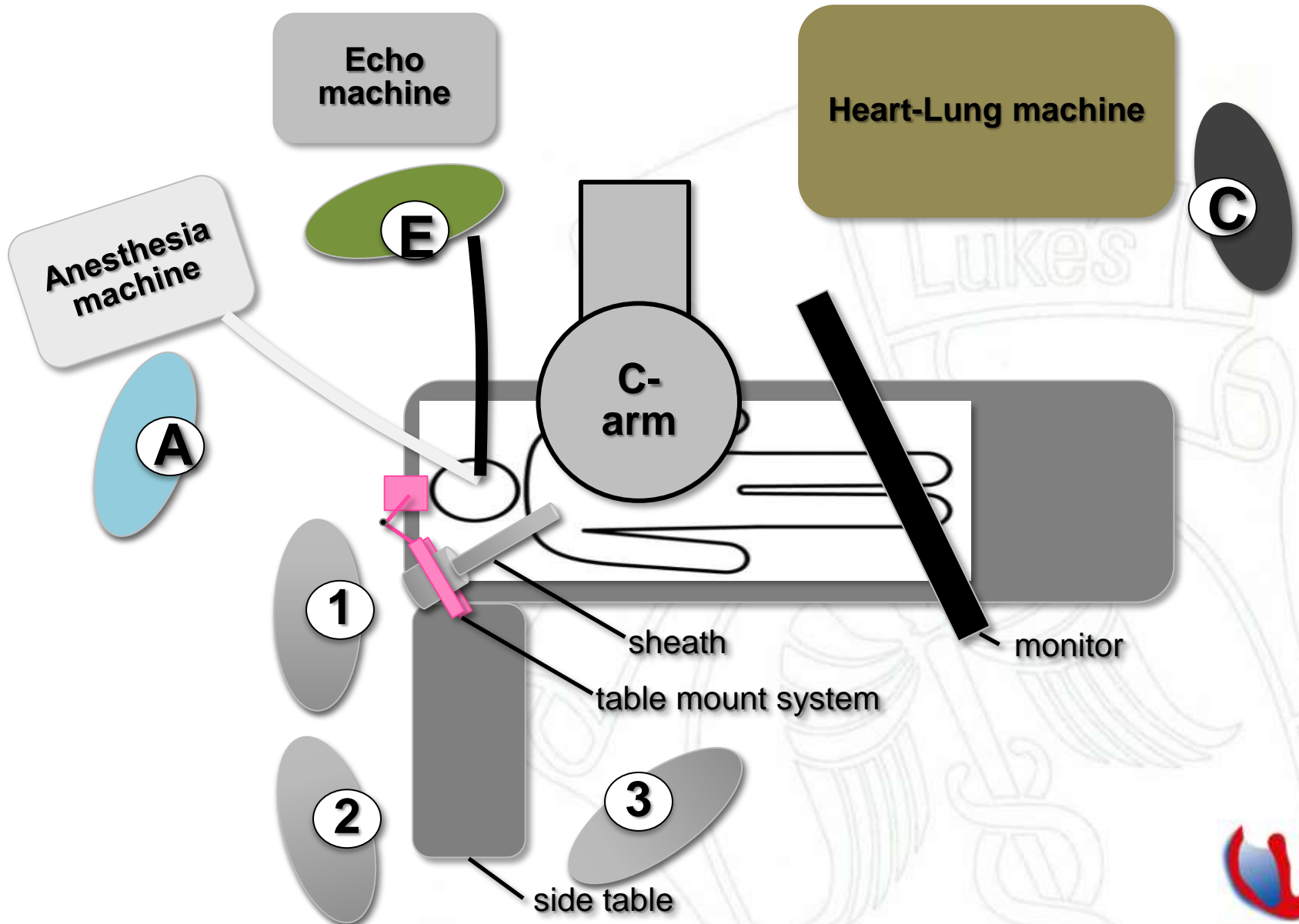


# System of CoreValve<sup>®</sup> Implantation

- Direct aortic approach with partial upper sternotomy down to 2<sup>nd</sup> right intercostal space.
- Select 29 mm CoreValve<sup>®</sup> due to 78.0 mm in perimeter of aortic basal plane.
- Sheath: GORE<sup>®</sup> 18Fr DrySeal with hydrophilic coating.
- Guidewire: Boston Scientific Amplatz Super Stiff<sup>™</sup>
- A rigid table mount instrument holder (Atrial Lift System Table Mount (Rigid), by AtriCure (Estech<sup>®</sup>)).

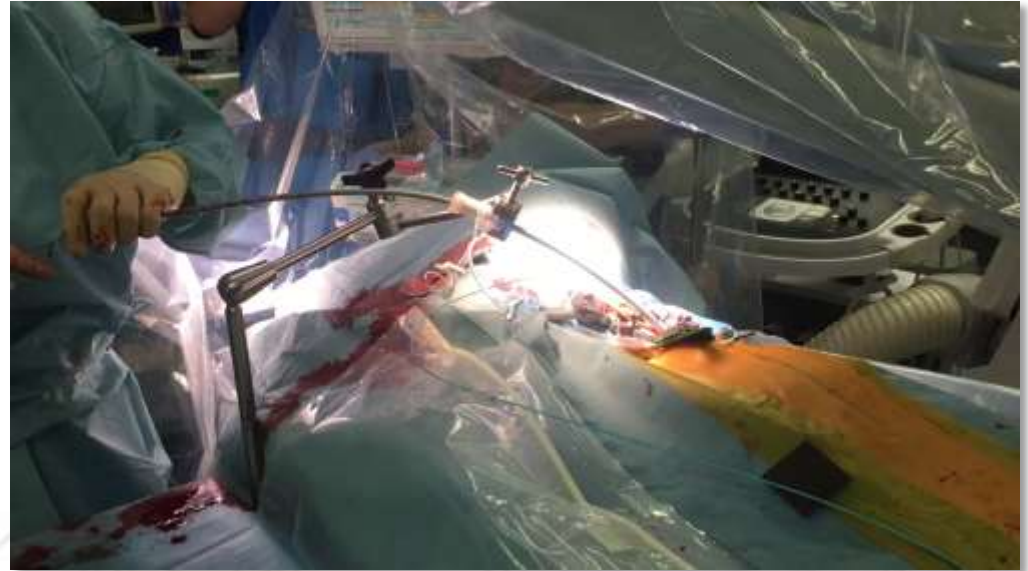
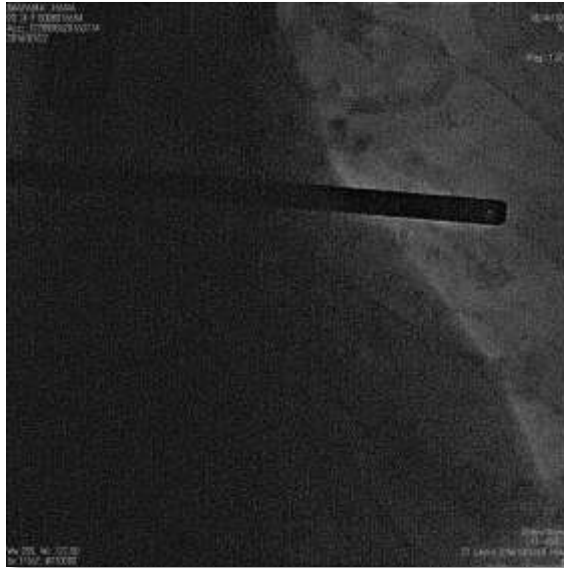


# Diagram of Hybrid OR Settings

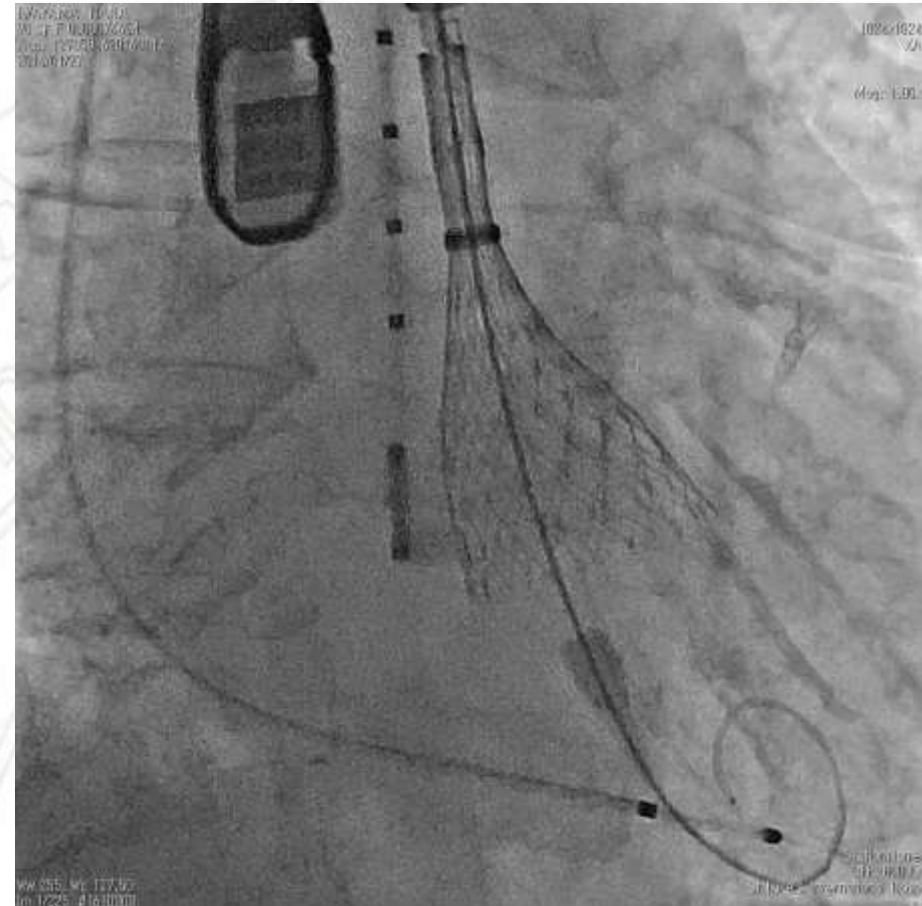
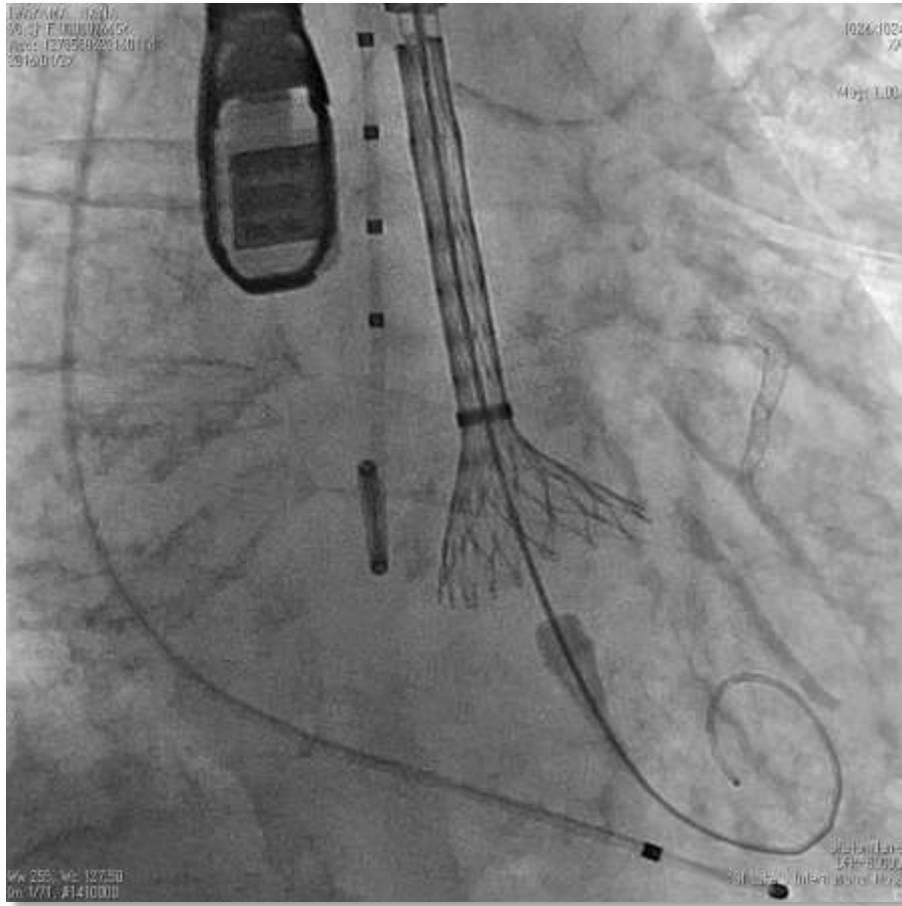




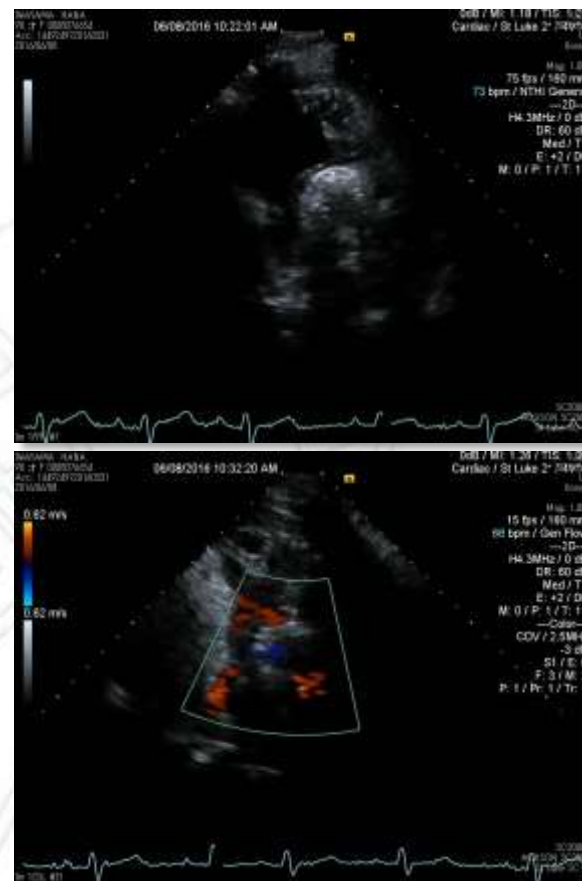
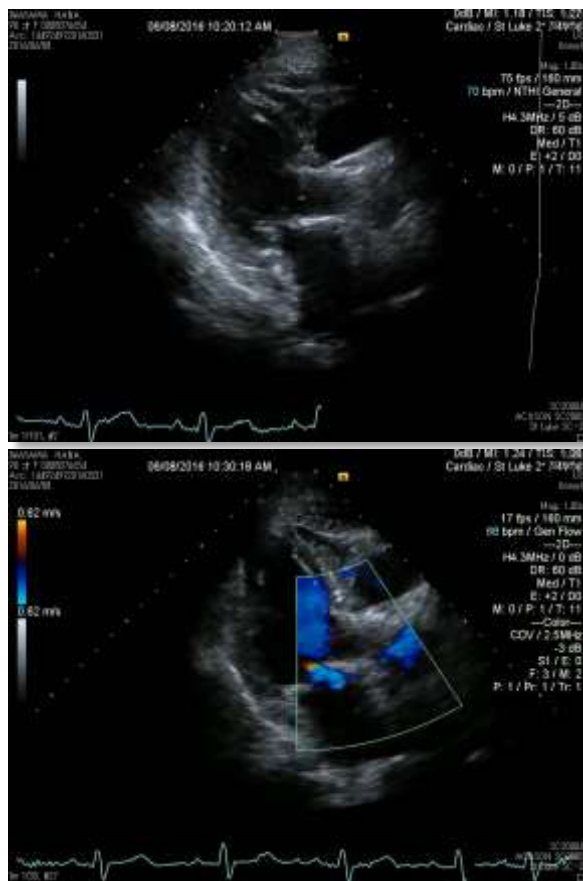
# Inserted Sheath Holded by the Arm



# Implantation of CoreValve®



# Transthoracic Echocardiograms



- Aortic valve area
- Mean pressure gradient
- Peak Velocity at AV

2.1 cm<sup>2</sup>  
4.6 mmHg  
1.6 m/sec



# Merits in Using a Rigid Table Mount Holder

- The 3<sup>rd</sup> person is not needed to hold a sheath and that can result in avoiding unnecessary exposure of radiation and keeping enough room around head of patient.
- The rigid holder can firmly keep a sheath during procedure of CoreValve<sup>®</sup> implantation, so operators can more concentrate to control position of the valve.

