Introduction

- fully sampled matrix-array transducers had made it possible for us to get excellent real-time imaging of the beating heart in three dimensions.

- There were significant technological developments in both hardware and software, including transducer design, microelectronic techniques, and computing.

- 3D-TEE matrix-array transducers are composed of nearly 3,000 piezoelectric elements with operating frequencies ranging from 5 to 7 MHz.
Acquisition Modes

- RT/Live
  - Narrow sector live 3D
  - 3D-Zoom
- Gated multiple beat Full Volume
Narrow sector Live 3D mode

- Narrow sector (300 x 600 pyramidal volume)
- Live
- Reasonable frame rate
- No stitch artifacts
Acquisition Modes

RT/Live

Narrow sector live 3D

3D-Zoom

Gated multiple beat Full Volume
3D-Zoom mode (Focused wide sector)

- Live/Real-time
- Wide sector is possible
- Variable frame rate (size dependent)
- No stitch artifacts

Acquisition Modes

- RT/Live
  - Narrow sector live 3D
- 3D-Zoom
  - Gated multiple beat
  - Full Volume
ECG gated multiple beat mode
Image Orientation

Full volume acquisition (LV mass)
Mitral Valve
Mitral Valve
RHD + MS
Case
Left Atrial Appendage
Tricuspid Valve

Case
SHORT COMMUNICATION

Three-dimensional transesophageal echocardiography incremental value in a case with a rare combination of tricuspid valve prolapse and rheumatic mitral valve stenosis

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Case
Aortic Valve
Aortic Valve

Case
How many cusps can you see?

Case
Inter-Atrial Septum
RATLe-90 maneuver

Aortic Root & Thoracic Aorta

**Acquisition:**

120 degrees-Mid esophageal (LVOT view) for Aortic root & any view for the thoracic aorta. Then activate the 3D-Zoom or Multiple beat acquisition.
Aortic Root & Thoracic Aorta

Annulus dimensions
Aortic Root & Thoracic Aorta
Annulo-osteal distance

Left Atrial View
Left Atrial View

**Acquisition:**
0-120 degree mid-esophageal views. Then activate 3D-Zoom or Multiple beat acquisition modes.
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