

## **Superiority of Real Time Three Dimensional Echocardiography in the Evaluation of Extra-Cardiac Intra-Thoracic Pathologies: Initial Experience**

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Real time three dimensional echocardiography (RT3DE) allows the evaluation of cardiovascular anatomy and hemodynamics without many of the assumptions adopted in two dimensional Doppler echocardiography.

**Aim:** evaluate the utility of RT3DE in the assessment of extra-cardiac intra-thoracic pathologies.

**Methods:** Real time trans-thoracic and trans-esophageal echocardiography using Phillips IE33 echocardiographic machine in subjects with extra-cardiac intra-thoracic pathologies.

**Results:** Huge aortic arch chronic pseudoaneurysm before rupture was diagnosed by RT3D-TEE in a subjects with stab-wound in the back before 60 years.

Aortic dissection in a subject with ascending aneurysm was detected by RT3DE-TEE not seen by other methods. In addition undiagnosed bicommissural aortic valve as a reason for severe aortic regurgitation was diagnosed.

Evaluation of a large thoracic tumor, assessing its extent, volume and content with the left coronary artery running through the mass was performed by RT3DE.

**Conclusions:** RT3DE is valuable in the assessment not only of cardiac anatomy and hemodynamics but also of extra-cardiac intra-thoracic pathologies without the need for radiation.