

Tricuspid TEER With 4D ICE Guidance

Images/courtesy Erasmus MC, The Netherlands

Transesophageal echocardiography (TEE) is considered the gold standard for image guidance during tricuspid valve repair. However, the ability to position the TEE ultrasound probe is limited by the esophageal path, the distance to the tricuspid

valve, and challenging transgastric en-face views. Four-dimensional intracardiac echocardiography (4D ICE) overcomes TEE's limitations and provides unobstructed adjacent views of the tricuspid valve and leaflet anatomy. In this case, a patient with severe

tricuspid regurgitation (Figure 1) presented for tricuspid transcatheter edge-to-edge repair (TEER). The use of TEE with an ICE catheter (the ACUSON AcuNav Volume ICE catheter, Siemens Healthineers) provided detailed views of tricuspid leaflet anatomy (Figure 2), enabling accurate deployment of a leaflet approximation device. Following TEER, tricuspid regurgitation was significantly reduced (Figure 3) and the patient reported symptomatic improvement. ■

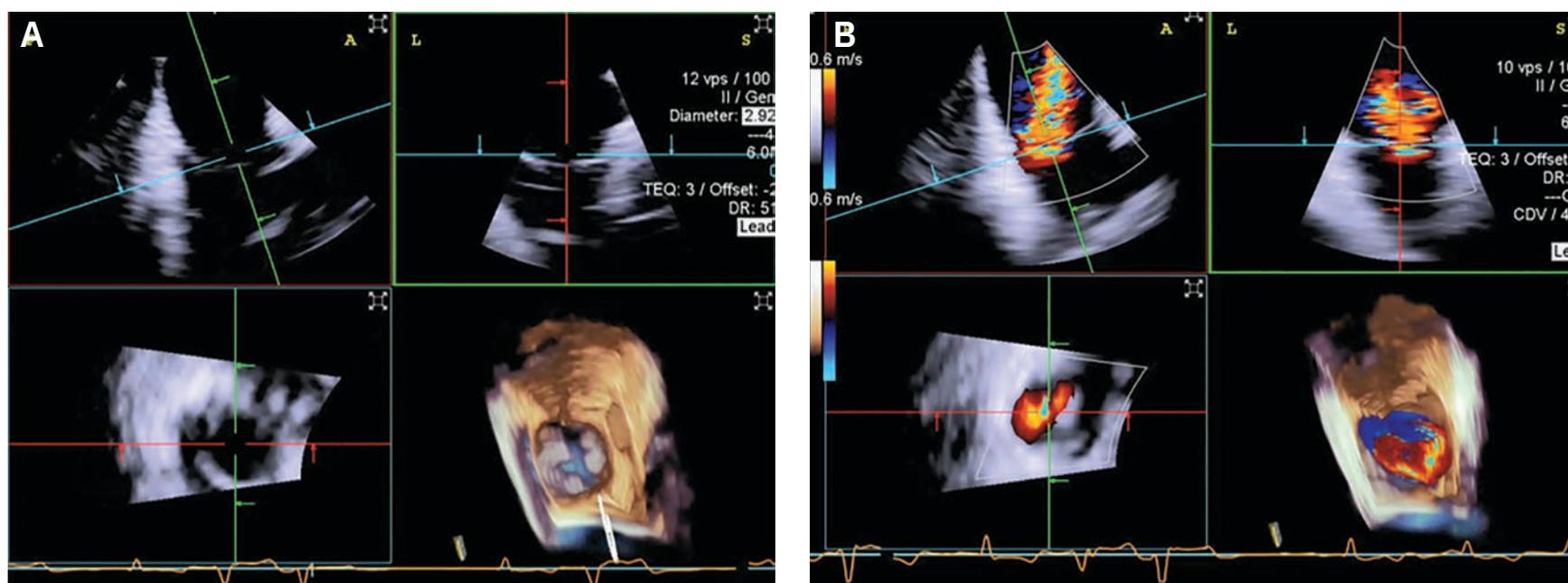


Figure 1A-B. Significant tricuspid valve leaflet malcoaptation (Figure 1A) and severe tricuspid regurgitation (Figure 1B), imaged with 4D ICE.

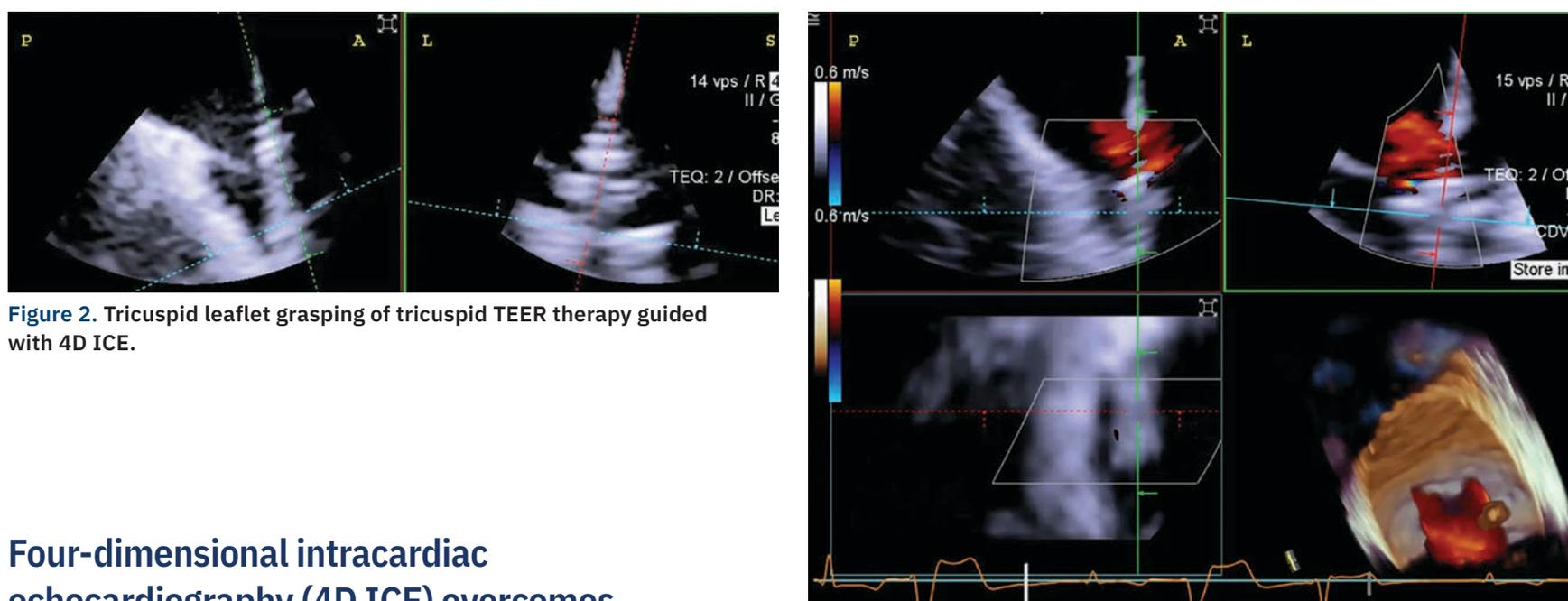


Figure 2. Tricuspid leaflet grasping of tricuspid TEER therapy guided with 4D ICE.

Four-dimensional intracardiac echocardiography (4D ICE) overcomes transesophageal echocardiography's limitations and provides unobstructed adjacent views of the tricuspid valve and leaflet anatomy.

Figure 3. Successful TEER with reduced tricuspid regurgitation.

View the article online by scanning the QR code:

