

The Sky has No Limits!



Karen G. Zimmerman, BS, ACS, RDCS, RVT, FASE, (Editor-in-Chief) and
L. Leonardo Rodriguez, MD, FACC, FASE, (Editor-in-Chief)

This edition of CASE contains even more creative imaging used to solve clinical dilemmas. With advances in imaging, we can not only find things but can also monitor and plan therapy. It is essential that we remain open and welcoming to creative solutions, while at the same time, they must be used with caution. Accurate, reproducible imaging is essential to avoid misdiagnosis and, unlike computed tomography or magnetic resonance imaging, echocardiography is highly operator dependent.

Perpendicular gray scale imaging and parallel color flow Doppler have been the foundation of accurate two-dimensional (2D) echocardiography for decades. Three-dimensional (3D) echo provides dramatic new images, huge data sets, and further expands our understanding of the heart. Yet 3D acquisition and analysis are even more complex and operator dependent. Furthermore, post-acquisition software does not automatically eliminate nonaxial oblique imag-

ing or parallax. Parallax is the displacement of the apparent position from the actual position of 2D planes as they cross a 3D object.

The new cover of CASE demonstrates 3D parallax-free axial echocardiography of the mitral valve, which has become critical for accurate diagnosis, reproducible measurements, and planning intervention. Parallax and oblique imaging are dangerously misleading and must be constantly sought and eliminated prior to analysis. At times, we will still need to “jump out of the plane” and use oblique or off-axis imaging to add detail. However, oblique and non-axial imaging are not reliably reproducible and typically lack the requisite landmarks needed to guide advanced interventionalists and surgeons. Start with the guidelines, then perform a basic parallax-free axial analysis as shown on our new cover. Then, share your experiences, discoveries, techniques, and tips with the world.

Remember, the sky has no limits. Let's explore it together!