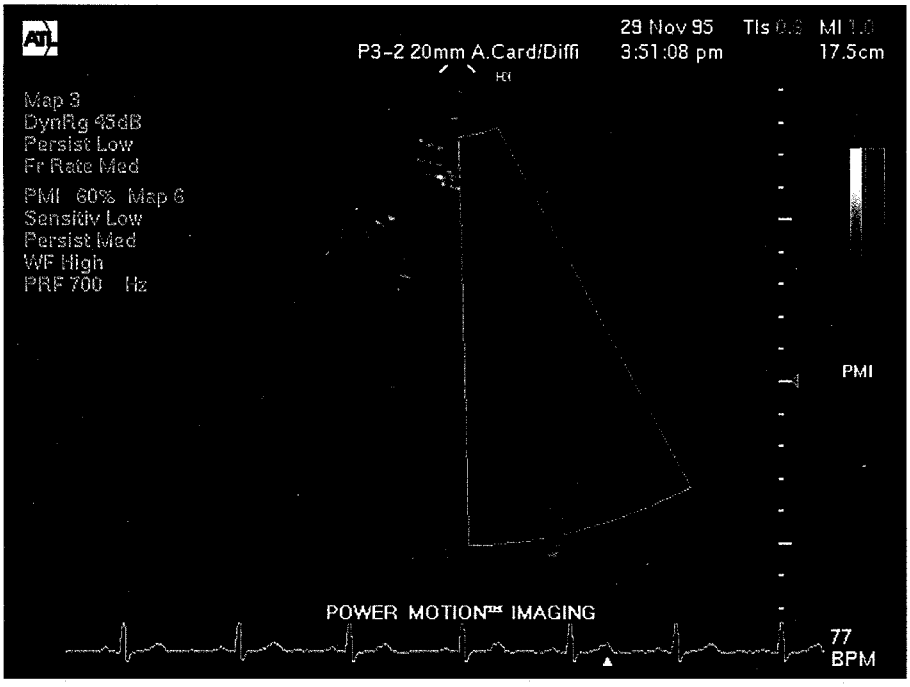
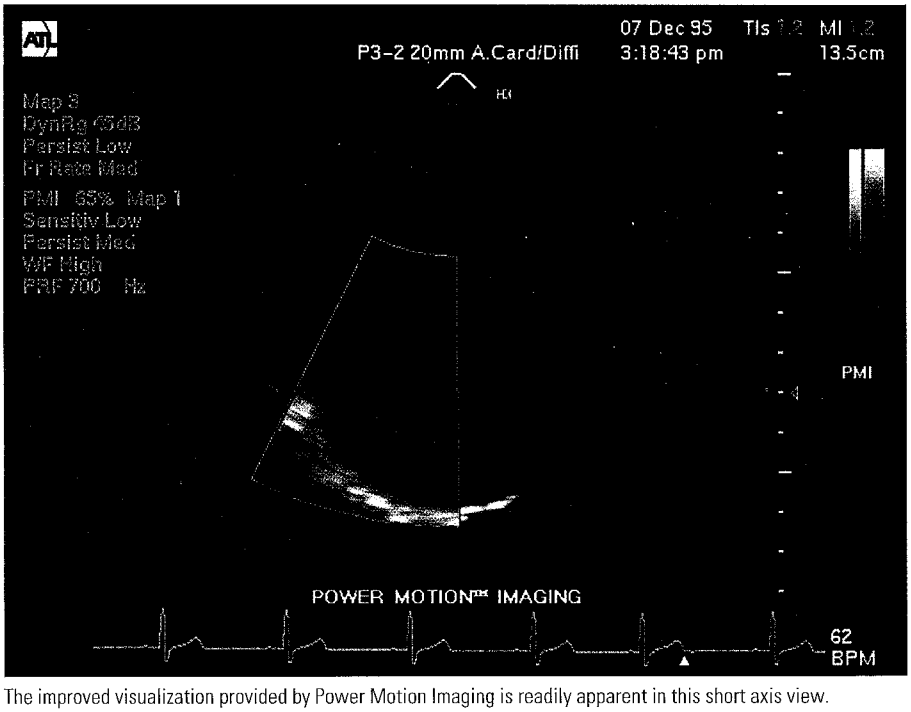
Power Motion™ Imaging
on the HDI® 3000CV System



In this technically difficult patient, Power Motion Imaging helps to define the lateral wall in the apical four-chamber view.



The improved visualization provided by Power Motion Imaging is readily apparent in this short axis view.

Power Motion Imaging (PMI) was developed to bring the full advantage of TrueDigital™ Technology to the challenge of imaging the technically difficult patient. PMI provides superb visualization to aid in assessing regional wall motion abnormalities. It is particularly useful when wall motion is difficult to evaluate, and as an aid in visualizing the endocardium.

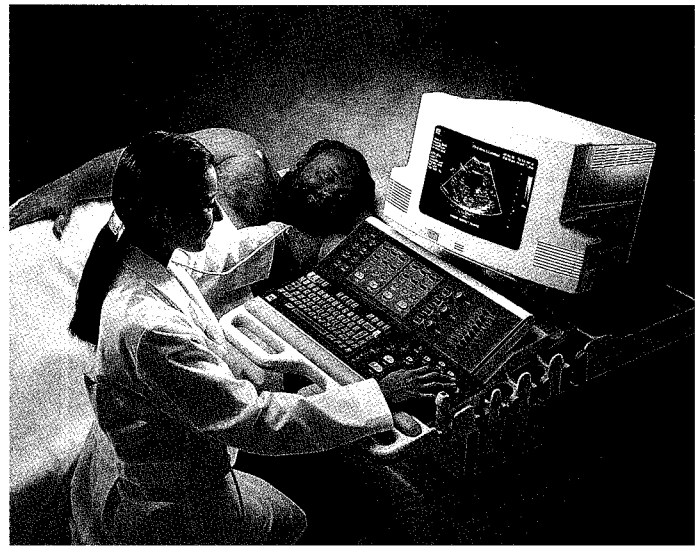
PMI is based on ATL's proprietary Color Power Angio™ Imaging mode, which is used in vascular ultrasound to evaluate low velocity flow in vessels. Power Motion Imaging is an amplitude-based color Doppler technique, which, when compared to conventional velocity-based color Doppler, is much less angle dependent and more sensitive to low velocity, high amplitude signals such as those from the myocardium.

Clinical Benefits

Color Doppler techniques were initially used to study the dynamics of blood flow within the heart and great vessels. More recently they have been adapted to study the dynamics of wall motion as an indicator of coronary artery disease. This technique is sometimes referred to as Doppler Tissue Imaging (DTI). The disadvantage of this approach is that the display is difficult to interpret and prone to artifact, especially when imaging technically difficult patients. PMI provides a simple display that emphasizes the moving wall against the static clutter often seen in difficult to image patients. Enhancing the visualization of wall motion in this way enables the clinician to recognize compromised myocardial segments more confidently in these patients.

- Provides the ability to resolve segmental wall motion that may not be appreciated in grayscale alone
- Provides easier visualization of wall segments during stress echocardiography, especially in the technically difficult patient population
- Helps to facilitate the assessment of cardiac function of patients relying on respirators
- Helpful in delineating apical or other mural thrombus formation
- Provides better lateral heart wall visualization
- Helpful in detecting the right ventricular free wall for volume studies
- Improves detection of subtle hemodynamic changes based on the presence of left ventricular spontaneous contrast
- Possible future benefits in contrast imaging, with easier visualization of perfusion*

*investigational



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