**PROGRESS IN ECHOCARDIOGRAPHY**

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Echocardiography has today become the most widely used technique in the noninvasive assessment of cardiac disease entities. It began in the fifties and sixties as A-mode and M-mode echocardiography in which a pencil-thin ultrasound beam was sent to the heart by placing a small transducer on the chest wall and images of very small portions of cardiac structures were obtained at any given time. Subsequently, in the seventies echo transducers were developed which moved the ultrasound beam rapidly so that more than one cardiac structure could be visualized simultaneously. This development of real time two-dimensional echocardiography revolutionized the field of cardiac imaging and with further development of conventional and color Doppler resulted in echocardiography becoming the most cost effective noninvasive imaging modality for the assessment of various cardiovascular lesions in both adult and pediatric patients. Subsequently, contrast, stress and transesophageal echocardiographic techniques added new dimensions by supplementing information provided by conventional two-dimensional echocardiography.

Live/real time three-dimensional transthoracic and transesophageal echocardiography represent more recent advances that are further changing the clinical practice of cardiology. They provide a valuable adjunct to the two-dimensional technique because of their ability to view cardiac structures in three dimensions. They are beginning to be used extensively in the cardiac catheterization laboratory for percutaneous interventional procedures and in the intraoperative setting for valvular and congenital heart disease. Three-dimensional speckle tracking echocardiography has also been developed and has provided new insights in the assessment of systolic as well as diastolic ventricular function.