Introduction

Echocardiography is an extremely useful, safe, and non invasive method for the diagnosis and management of heart disease, Echo studies, which use ultrasound, provide anatomic diagnosis as well as functional information. This is especially true with the incorporation of Doppler echo ***(Park, 2003)***.

Congenital heart disease is present in about 1% of newborn infants. Symptoms and signs of congenital heart disease (CHD) in infants include:

Tachypnea, failure to gain weight, tachycardia, heart murmur, congestive heart failure and cyanosis ***(Nora et al., 1997)***.

The field of congenital heart surgery has undergo tremendous change in the past decade as early and complete repair in infancy has been emphasized. During this time, postoperative echocardiography has become an accepted standard for evaluation of these repairs, and it can be argued that it is the most sensitive and most specific method for demonstrating need for operative revision ***(Ungerleder et al,. 1990)***.

Multiple studies have documented the benefit of postoperative transesophageal echocardiographic examination after surgical correction or palliation for congenital heart disease. Interventional procedures to modify CHD in the cardiac catheterization laboratory have also benefited from TEE imaging ***(Frommelt et al., 1998)***.

The two dimensional Doppler echocardiography has became the primary diagnostic tool in the assessment of infants and children with congenital and acquired heart disease.

Over the past 10 years, specialized echocardiographic techniques have become critical components in the evaluation and ttt of these patients, transesophageal echocardiography (TEE) allowed imaging patients with congenital heart disease during repair in the operating room and in the cardiac catheterization laboratory, so the adequacy of the repair can be assessed and any residual lesions assessed immediately ***(Frommelt and Frommelt, 1999)***.

Echocardiography has dramatically reduced the requirement for invasive studies such as cardiac catheterization. The echocardiagraphic examination, can be used to evaluate cardiac structure in congenital heart lesions, estimate intracardiac pressures and gradients across stenotic valves and vessels, quantitative cardiac contractile function (both systolic and diastolic), determine the direction of flow across a defect, examine the integrity of the coronary arteries, evaluate the presence of vegetations due to endocarditis, and the presence of pericardial fluid, cardiac tumours or chamber thrombi.

Echocardiography can also be used to assist in the performance of pericardiocentesis, Balloon atrial septostomy, and endocardial biopsy, and in the placement of flow directed pulmonary arterial (Swan-Ganz) monitoring catheters ***(Richard, 2000)***.

Thus, with transesophageal echocardiography (TEE), a new echocardiographic window is obtained which enables cardiologists to explore the heart from the esophagus and stomach ***(Ozkutlu et al., 2001)***.

Finally, TEE has been used in the intensive care unit after CHD surgery, Bandages, chest tubes, and the presence of an open sternum are

all limiting factors for ultrasound imaging through the chest wall, leaving TEE as the only available ultrasound window to the heart ***(Marcus et al., 1994)***.