INTRODUCTION

Coronary artery diseases are the leading cause of death all over the world. Thus, accurate evaluation is needed to determine the extent, effects and exact heart abnormalities or limitation of function caused by the disease. It is not surprising then, that heart catheterization is considered the most definitive procedure for diagnosis and evaluation of coronary artery diseases.

Cardiac catheterization is the most definitive, but most invasive, test in the diagnosis of heart disease. Cardiac catheterization guides a thin flexible tube (catheter) into the narrowed coronary arteries; Cardiac catheterization is a test to check the heart and coronary arteries. It is used to check blood flow in the coronary arteries and blood pressure in the chambers of the heart, find out how well the heart valves work, and check for defects in the way the heart move ***(William, 2004)***.

Recent statistic of cardiac catheterization in National Heart Institute has 150 patient per month (***WHO Statistical Information System, 2007)*** and 350 Patient per year 2006 at Benha University hospital ,Results from cardiac catheterization help determining whether treatment with bypass surgery or precautious coronary intervention (PCI), such as angioplasty, may be effective ***(Close, 2004).***

Indications of cardiac catheterization are as follow, Identification of the extent and severity of coronary artery disease and evaluation of left ventricular function ,assessment of the severity of valvular or myocardial disorders such as aortic stenosis and/or insufficiency, mitral stenosis and/or insufficiency, various cardiomyopathies to determine the need for surgical correction, collection of data to confirm and complement noninvasive studies determination of the presence of coronary artery

diseases in patients with confusing clinical presentations or chest pain of uncertain origin, and determination of the presence of coronary artery diseases in patients with confusing clinical presentations or chest pain of uncertain origin ***(Grossman & Baim, 2000).***

Although cardiac catheterization procedure will be tolerated by most patient, this invasive procedure is associated with a risk for complication such as bleeding at femoral arterotomy site**.** ***Finkeleier, (2000)*** reported that mortality risk associated with the procedure of cardiac catheterization ranges from 0.14 %to 0.17%and the most common complication of cardiac catheterization is vascular complication including thrombus formation, hematoma and arteriovenous fistula. In Egypt, (1990) complication of cardiac catheterization varies from vascular complication (2.2%), arrhythmias (1.8%), heart failure (0.8%)and myocardium infarction (2.2%), in addition to the unpleasant experience for the patient. Hence,caring for patients undergoing cardiac catheterization requires an expert nurse who understand the type of complications that can occur, as well as the assessment skill to spot them. The combination of nursing knowledge and skills during the period before and after cardiac catheterization aims to assure safe and accurate procedure, and improving physical and mental health.

Complication of cardiac catheterization as any invasive procedure that associated with sever complications, the decision to recommend cardiac catheterization must be based on a careful evaluation of the risks and benefits to the patient ***(Wyman, 2004).***

The risks of cardiac catheterization are usually explained by the cardiologist. The risks vary with the procedure to be performed and the client physical status.Right heart catheterization is less risk than left sided

catheterization. Several complication may follow coronary arteriography, such as:myocardial infarction, cerebrovascular accident, arterial bleeding, thromboembolism, letheal dysrhythmias, death ***(Mlinda, 2005).***

Nurses have important role in cardiac catheterization, nurse assesses the client physical, psychosocial readiness and knowledge level, The nurse review, the purpose of the procedure and informs the client how long the procedure usually takes, states who will be present while it is going on, and describes the appearance of catheterization laboratory. The client also informed about the sensation that may be experienced during the procedure such as palpation (as the catheter is passed up to the left ventricle): a feeling of the heat or hot flash (as the dye is injected into either side of the heart) and a desire to cough. The nurse may use written, illustrated materials or videotapes. If avialable, to assist the client understanding , Nurses role is not only concerned with implementation of patient teaching but also monitoring and caring for the patient post cardiac catheterization to prevent complication ***(Donna et al., 2005).***

Significance of the study:

Today cardiac catheterization becomes a routine procedure in hospitals. More than million cardiac catheterization was performed. Data generated from this study could help in planning and managing care in cardiac catheterization unite as well as training adequately the personal responsible for the provision of such care.