Brief note on Cardiac Catheterization.

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Introduction

Over the past four centuries, cardiac catheterization has developed into an invasive technique. Stephen Hales, who recorded the first arterial pressure in the early 17th century, might be regarded as the father of cardiac hemodynamics and cardiac catheterization even though William Harvey's explanation of circulation served as the basis for it. Animal research served as the foundation for early cardiac catheterization development. The first right cardiac catheterization on a human was carried out in 1929 by Werner Forssmann. In the 1950s, Zimmermann HA carried out the initial left-sided cardiac catheterization. Cardiac catheterization saw significant development in the 20th century as a result of the work of several researchers, including Andre Cournard, Dickinson Williams, and others. The first selective coronary angiography was first described by William Sores after the first research and development of cardiac catheterization [1].

Left cardiac catheterization serves both diagnostic and curative purposes. Its primary diagnostic function is the evaluation of coronary artery disease, despite the fact that it is employed for cardiac hemodynamics and valvular lesions assessment. Today, selective coronary angiograms performed during left heart catheterization are regarded as the gold standard technique for detecting coronary artery disease. Over the past 50 years, left cardiac catheterization's therapeutic role has undergone significant change. Left heart catheterization, in addition to percutaneous coronary intervention, is crucial for the closure of congenital abnormalities, radiofrequency ablation of arrhythmias, and valve replacement in the modern day. The anatomy, physiology, and indications of left cardiac catheterization will be succinctly covered in this article. Additionally, we will go through fundamental techniques, procedural difficulties, and one of the most often carried out heart operations is cardiac catheterization. Annually, more than 1,000,000 cardiac catheterization procedures are carried out in the United States. There are certain patient-related and procedure-related difficulties with any invasive procedure, as is to be expected. The incidence of these problems has greatly decreased thanks to improvements in cardiac catheterization equipment, operator expertise, and innovative procedures. Right heart catheterization, left heart catheterization, or both might be referred to as cardiac catheterization. Depending on the clinical requirement, interventional cardiologists can carry out a number of interventions. The operation can be either diagnostic or therapeutic [2].

Every year in the United States, more than 1 million cardiac catheterization operations are carried out, mostly to identify and treat individuals with suspected or verified coronary heart disease and other related illnesses. The catheterization process has swiftly developed and grown in scope and technique since Mason Sones first introduced selective coronary angiography in the 1950s, and it now collectively comprises coronary, peripheral vascular and structural heart treatments as well. While many traditions have endured as a result of beliefs and theoretical concerns, many practices have arisen during this evolution on the basis of evidence. Some of these customs are blindly upheld and not supported by reliable modern data. The recommended practices for cardiac catheterization laboratories were detailed in the 2016 Society for Cardiovascular Angiography and Interventions expert consensus statement. An interventional cardiologist typically performs cardiac catheterization with help from nurses and radiologic technologists [3].

Inter professional cardiac care team. A nurse is solely responsible for keeping track of the vital signs throughout the process. The nurse is in charge of checking the distal extremities pulses and the access site for bleeding after the procedure. The nurse will also keep track of the amount of urine produced to make sure that the dye has not adversely affected the kidneys. When doing cardiac catheterization, inter professional cooperation and open communication will be very beneficial. Compared to the transferal technique, there is mounting evidence that the transradial approach for cardiac catheterization lowers related problems and enhances patient comfort. For access, use ultrasonography or fluoroscopy [4].

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