ENDOMYOCARDIAL BIOPSY-A NOVEL TECHNIQUE THROUGH FEMORAL APPROACH

Muhammad Nadir Khan, Usman Iqbal

Armed Forces Institute of Cardiology (AFIC)/National Institute of Heart Disease (NIHD) Rawalpindi Pakistan

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INTRODUCTION

The technique of Endomyocardial biopsy was first described in 1974¹. It is an established invasive clinical tool used for surveillance of cardiac allograft rejection and, to a lesser extent, in the evaluation of dilated and restrictive cardiomyopathies². It is usually performed through right internal jugular approach. However, with the advent of long flexible bioptome, femoral approach can also be employed. Here, we report case of а endomyocardial biopsy, performed through femoral approach.

CASE REPORT

A 46-year-old man, cardiac allograft recipient, underwent endomyocardial biopsy for the surveillance of antibody mediated rejection. The gentleman had kyphoscoliosis due to long standing ankylosing spondylosis. So it was decided to adopt femoral approach. 6 fr sheath was placed in right femoral vein. Finding it difficult to negotiate the bioptome through inferior vena cava, that is usually uncustomary, it was decided to use mullein sheath at first stance. Initially, the mullein sheath was placed in right atrium and it was attempted to direct the bioptome through the mullein sheath into the right ventricule. Having met failure, in the next step, mullein sheath was parked in the right ventricule sliding it over the exchange wire that was first crossed into the right ventricle upto the right ventricular outflow track. To our surprise, placement of mullein sheath into right ventricle gave stability bioptome extra to the get Endomyocardial biopsy. 4 biopsy samples were taken and sent for histopathology. Whole

Correspondence: Dr Usman Iqbal, Classified Medical Specialist, AFIC, Rawalpindi, Pakistan *Email:usmaniqbal76@gmail.com* procedure was performed under fluoroscopic guidance. The patient was kept overnight in the hospital and discharged next morning following transthoracic echocardiogram that did not reveal any complication.

DISCUSSION

All patients who undergo Endomyocardial biopsy are at risk of complications. The rate of complication is reported to range from 1 to 6% in most case series³. Reported complications include access site hematoma, transient right bundle branch block, transient arrhythmias, tricuspid regurgitation, and occult pulmonary



Figure: Endomyocardial biopsy through femoral approach using mullein sheath.

embolism. Life-threatening complications occur far less frequently. Right ventricular perforation is seen in less than 1% cases⁴. Although rare, procedure-related deaths have been reported⁴. Clinical experience suggests that the risk of clinically relevant cardiac perforation in transplant recipients is small in part because the pericardial space has been nearly obliterated and any right ventricular perforation is contained by the pericardium². Since the right ventricular free wall is thin, obtaining biopsy from this area might be dangerous; thus, attempt should be made to take the sample from the interventricular septum⁵.

CONFLICT OF INTEREST

This study has no conflict of interest to

declare by any author.

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