

Right Anterior Minithoracotomy with Conventional Mechanical Heart Valve prosthesis initial experiences

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Abstract

Background: Heart valve surgery from minithoracotomy has come in most centres worldwide but still is not much prominent in our part of world in view of high cost engaged. Suture less heart valve cost a lot in our part of world and has become most limiting factor for use of minithoracotomy in heart valve surgeries. We in our centre have re Tribhuvan University, Nepal

use of the conventional valve from right minithoracotomy aortic position.

Method: It is a survey of a eventually compiled data of patient undergoing mini aortic valve replacement over one-year span. We have used typical mechanical heart valve in aortic position in rheumatic aortic stenosis and regurgitation.

Result: Total 20 AVR has been performed from right anterior mini thoracotomy over one year. 12 (60%) of patient were male, one of the patient got re explored from same incision for mediastinal bleeding. Mean total pump run and aortic cross clamp time was 96 and 88 minutes respectively.

Introduction: Valvular heart disease (VHD) is one of the most relevant cardiovascular diseases which its pervasiveness differs regarding age; gender and different communities. There are different etiologies of VHD incorporating rheumatic, degenerative, traumatic, congenital, and infectious heart defects. VHD remains ubiquitous in developing countries, because the expansion in pervasiveness of rheumatic heart diseases. Rheumatic heart disease is induced by infection with group-A beta-hemolytic streptococcus bacteria, and it appears when the victim does not obtain proper medical treatment. The prevalence of VHD has been also expanded during the previous years in industrialized countries due to expansion in pervasiveness of degenerative valve defects. Surgery executes a vital role in order to treat the patients with VHDs, which lead to less mortality and better quality-of-life. Heart valve replacement is the second most familiar type of heart surgery after coronary artery bypass

graft surgery. Different postoperative complications are correlated with this procedure. In past studies, the rate of fatality following heart valve replacement was reported from 4.3% to 14%. There are different rates of prevalence and prevalence of VHDs between industrialized and developing countries and limited number of studies have been organized regarding VHDs in Iran as a developing country, therefore, we organized this study in order to determine the rates of postoperative complications and mortality in patients underwent heart valve replacement surgery in one of the tertiary centre in our country.

Heart valve surgery has made relevant progress over the last six decades. The advancement of the heart lung machine in 1953 allowed surgeons to operate on the heart by separating it from the rest of circulation. Treatment of valve disease ranges from transcatheter implantation (TAVI) to full definitive operative replacement. In the last decade, there has been a divergence towards heart team decision making witnessing valve intervention. This empowers high-risk patients to be offered transformative treatment. The guts team should incorporate cardiac surgeons, interventional cardiologists and imaging cardiology specialists. There are further developments in minimally invasive repairs and restorations (including percutaneous approaches to valve therapies). Anatomical and physiological knowledge is predominant to the choice making process regarding indications, reparability and outcomes following surgery.

Aortic valve preservation and repair is emerging as a feasible alternative to semilunar valve replacement within the treatment of aortic root pathology with or without aortic insufficiency. Preservation of the native semilunar valve leaflets has gained popularity in cardiac centers worldwide thanks to the success of repair techniques and therefore the potential of avoiding the long-term complications of prosthetic valves. However, unlike the bicuspid valve, which is related to a comparatively high proportion of repair, semilunar valve repair is merely performed in but 2% of all semilunar valve surgery. This difference is essentially thanks to the very fact that the foremost commonly seen pathology of the semilunar valve is calcific stenosis, which isn't amenable to repair. Additionally, there's a way longer and skilled experience with successful bicuspid valve repair techniques.

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