

Open saphenous vein technique is the standard of care in patients undergoing coronary artery surgery (CABG) worldwide and in Saudi Arabia. Endoscopic vein harvest (EVH) is an innovative technique that have been recommended by the international society of minimally invasive surgery. Our aim in the current study is to review our preliminary data about endoscopic vein harvest. Would endoscopic vein harvest decrease the incidence of leg wound infections? This is a retrospective study of a single tertiary care center of 94 consecutive patients who underwent CABG with EVH. Preoperative associated risk factors were assessed. Postoperative follow up includes leg wound infection and patient satisfaction with EVH by using a telephone and/or a paper questionnaire. We had 94 consecutive patients who underwent CABG with EVH between October 2014 and October 2015, mean age was 56.7 (33–77) years, 91.5% were male, mean euro score II was 2.47%. The most common presentation was NSTEMI (39.4%) followed by STEMI (26.6%), unstable angina (11.7%) and stable angina (5.3%). Our cohort had the following characteristics: 85.1% were diabetic, 84% were hypertensive, 46.8% had dyslipidemia, 2.1% had CVA, 7.4% had Carotid artery disease, 2.1% had Congestive heart failure, 4.3% had any renal disease and 4.3% had previous PCI. Most of our patients received 3 grafts (44.7%) followed by 4 grafts (42.6%) of which only one leg was used for EVH (94.1%). Leg wound infection occurred in one patient only and in this case EVH was converted to open technique. A written and/or telephone questionnaire resulted in a high patient-satisfaction with the cosmetic outcome of EVH as well as very low grade of leg wound pain. EVH is a very promising innovative technique in patient undergoing CABG. Our patients were highly satisfied with their leg wound cosmetic outcome. In this single center experience, in Saudi Arabia, EVH is a promising innovative technique for saphenous vein harvest. It is highly recommended that cardiac centers in Saudi Arabia embrace such less invasive technology.

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#### SURGICAL THERAPY FOR VALVULAR HEART DISEASE

##### 57. Aortic valve replacement with sutureless valve and mitral valve repair in patient with infected aortic homograft

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The approach of implanting aortic sutureless valve inside the calcific homograft is suitable in redo surgery especially if associated with mitral valve surgery. Aortic

valve replacement in patients who have undergone previous aortic root replacement with an aortic homograft remains a technical challenge because of homograft degeneration and the need for a redo Bentall operation. We report a case of redo aortic valve replacement (valve in valve) with a sutureless valve and mitral valve repair by miniband annuloplasty in a female patient aged 64 years old who underwent aortic valve replacement with homograft 14 years ago and presented by severe aortic valve regurgitation and severe mitral valve regurgitation because of infective endocarditis. This technique allows rapid aortic valve replacement in a heavily calcified aortic root. It also avoids aortic valve size affection after mitral valve repair by ordinary methods especially in patients with small aortic annulus. This technique is particularly suitable in redo procedures for homograft degeneration, it avoids performing a redo Bentall operation with its known problems as well as to avoid patient prosthesis mismatch.

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##### 58. Predictors for the outcome of aortic regurgitation after cardiac surgery in patients with ventricular septal defect and aortic cusp prolapse in Saudi patients

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Aortic valve (AV) prolapse and subsequent aortic regurgitation (AR) are two complications of ventricular septal defects (VSD) that are located close to or in direct contact with the AV. This finding is one of the indications for surgical VSD closure even in absence of symptoms in order to protect the AV integrity. Goal of our study was to assess the outcome, and to identify the predictors for improvement or progression of AR after surgical repair. A retrospective study of all children with VSD and AV prolapse who underwent cardiac surgery at King Abdulaziz Cardiac Center in Riyadh between July 1999 till August 2013. A total of 41 consecutive patients, operated for VSD with prolapsed AV, with or without AR, were reviewed. The incidence of AV prolapse in the study population was 6.8% out of 655 patients with VSD. Thirty-six (88%) patients had a perimembranous VSD and 4 had doubly committed VSD. Only one patient had an outlet muscular VSD. Right coronary cusp prolapse was found in 38 (92.7%) patients. Preoperative AR was absent in 5 patients, mild or less in 25 patients, moderate in 7 and severe in 4 patients. Twenty six patients showed improvement in the degree of AR after surgery (Group A), 14 patients showed no change in