the degree of AR (Group B) while only one patient showed progression of his AR after surgery. Those with absent AR before surgery remained with no AR after surgery. Improvement was found more in those with mild degree of AR preoperatively compared to those with moderate and severe AR. Female gender also showed tendency to improve more as compared to male. Early surgical closure is advisable for patients with VSD and associated AV prolapse in order to achieve a better outcome after repair and to prevent progression of AR in future.

http://dx.doi:10.1016/j.jsha.2016.04.059

SURGICAL TREATMENT OF HEART FAILURE, TRANSPLANTATION, AND ARRHYTHMIAS

59. Early and late results of routine leaflet augmentation for complete atrio-ventricular septal defect repair

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Complete AVSD (CAVSD) is characterized by the presence of a common atrio-ventricular (AV) orifice, an inter-atrial communication, and a ventricular septal defect (VSD). Results of surgical correction of atrio-ventricular septal defects (AVSDs) have improved over the last decades; however, the need for reoperation for left atrio-ventricular valve regurgitation, after primary AVSD repair remains a major concern. The aim of our study is to assess the outcome of the routine leaflet augmentation technique in CAVSD repair. A retrospective database and chart review analysis of all patients who underwent AV canal repair at king Abdul-Aziz Cardiac Center during period from 1999 to September 2014 was conducted. Demographic data, associated anomalies, operative data, ICU and hospital course were reviewed. Early outcomes were reviewed for postoperative complications (Chylothorax, complete AV block, Arrhythmias, early mortality) and late outcomes were reviewed for Left AV valve regurgitation requiring for re-intervention and late mortality. Two hundred and sixty patients underwent leaflet augmentation technique to repair complete AVSD, between January 1999 and September 2014. The mean age was (131.5 months), and mean weight (6.06 kg). A variety of concomitant procedures were performed at the time of repair of the CAVSD, including a total of 49 patients (18.8%) who underwent PDA ligation. Repair of TV (Right AV valve) was performed in 11 patients (4.2%), 9 patients (3.46%) required RVOTO resection, in 5 patients (1.92%), PA plasty was done and 2 patients (0.76%) required ECMO after CAVSD repair.

Regarding reoperations, a total of 17 patients (of 260) required reoperation after initial CAVSD repair. The most common indication for reoperation was left AV valve regurgitation in 16 patients (6%) in the follow up period up to 15 years. One patient (0.38%) required diaphragmatic plication. The overall mortality was 3 patients (1.1%). Leaflet augmentation for the repair of the complete AVSD, represent a good surgical alternative technique, allows for good exposure, good LAVV reconstruction and close to anatomical repair and results in reduced incidence of late Left atrio-ventricular valve regurgitation.

http://dx.doi:10.1016/j.jsha.2016.04.060

DISEASE MANAGEMENT, QUALITY OF CARE, AND CLINICAL OUTCOMES

60. Mid-term outcome of cardiac resynchronization therapy in pediatrics: single institution experience

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Cardiac resynchronization therapy (CRT) has become an increasingly important therapeutic option for patients (pts) to treat dyssynchrony associated moderate and severe heart failure. Few reports however, determined the beneficial effects of CRT in pediatrics and midterm outcome following this therapy. Our aim is to assess the mid-term outcomes of CRT in children with evidence of dyssynchrony associated heart failure. Cardiac resynchronization therapy is beneficial in treating congenital heart disease patients who have evidence of dyssynchrony associated heart failure. Retrospective review of 18 consecutive pediatric patients who underwent CRT at our institution between January 2002 and August 2011 Cardiac resynchronization pacemaker was implanted in 18 pts the majority of pts (14) with congenital heart disease. Fourteen pts had preexisting complete heart block and chronic right ventricular pacing. Epicardial left ventricular leads were implanted in all pts while the atrial and right ventricular leads approach varied according to the pt size and anatomy. Indication for CRT was symptomatic dilated cardiomyopathy with evidence of electrical and/or mechanical dyssynchrony demonstrated by M-mode, 3-D echo, or tissue Doppler. The median age of this cohort was 14 years (range 6 months–16 years), the median follow-up time was 7.2 years (range 1–10 years). Subjectively, 16 out of 18 pts reported symptomatic improvement with decreased hospitalizations. The left ventricular ejection fraction improved from mean of 27% (SD 13%) to mean of 50% (SD 13%) (P value <0.001). Additionally, cardiomegaly
improved significantly in during follow up (P value <0.001). The QRS duration with CRT was less but the change is not significant (P value = 0.1) suggesting that electrical resynchronization is not a prerequisite for clinical improvement in this cohort. Children including those with congenital heart disease patients who have evidence of dysynchrony associated heart failure appear to benefit from cardiac resynchronization therapy on the mid-term. Selection criteria should include the use of new technologies to demonstrate mechanical dyssynchrony beside other conventional indications of CRT. Further studies looking at long-term benefits of CRT in pediatric and CHD patients are needed.

http://dx.doi:10.1016/j.jsha.2016.04.061

61. The effect of depression on medication adherence in patients with heart failure

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Heart failure is a major and growing public health problem; approximately 5 million patients in the USA have heart failure. Depression is a serious mental illness that interferes with daily life activities and quality of life of Heart Failure Patients. Aim: To determine the association between depression and the medication adherence in patients with heart failure. Depression will reduce adherence to medication in patients with heart failure Quality project involving 50 patients with heart failure who have regular visits in Cardiovascular Disease Management Program in King Abdul-Aziz Cardiac Center. Two validated self-reporting tools; the Morisky Scale for Medication Adherence and the Patient Health Questionnaire (PHQ) for assessment of depression will be used. Multiple regression analysis with adjustment for covariates will be used to examine the relationship between depression and medication adherence. 66% of patients were male with mean age of 62 ±11 years, more than one third (36%) had depression at different level, 61% of subjects in this group showed low adherence rate compared to 6% amongst those who had no depression (p < 0.001). Depression has a major impact on the medication adherence in patients with heart failure.

http://dx.doi:10.1016/j.jsha.2016.04.063

62. Gap in the application of implantable defibrillator and cardiac resynchronization therapy guidelines in heart failure patients

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Background and objectives: Literature review revealed no studies were done regarding the application of implantable defibrillator and cardiac resynchronization therapy guidelines in Saudi Arabia. Therefore, our aim was to identify the gap in the application of the guidelines for acute on chronic systolic heart failure patients in Saudi Arabia.

Design and setting: We used data from the heart function assessment registry trial in Saudi Arabia (HEARTS) to explore the rate of device implantation. In consecutive cohort admitted in 18 governmental hospitals with heart failure between October 2009 and December 2010.

Results: Of 1664 patients with acute on chronic systolic heart failure enrolled in the HEARTS registry, 227 (13.64%) have undergone a past ICD/CRT, 148 (8.9%) patients with ICD and 79 (4.7%) patients with CRT. 1437 (86.36%) patients did not go through an ICD or a CRT. From 71 VT/VF patients who are required to have an ICD only 10 (14%) patients received an ICD therapy. 223 patients have a left bundle branch block and 35 (15.6%) of those patients received an ICD/CRT device. From 831 patients with LVEF < 30%, 170 (20.5%) went through a past ICD/CRT.

Conclusion: Since a large number of whom required an ICD/CRT did not receive a device, a gap in the application of ICD/CRT devices had been identified, further studies are required to establish the reason behind this.

http://dx.doi:10.1016/j.jsha.2016.04.063

63. Clinical and angiographic profile of myocardial bridges in patients undergoing coronary angiogram for evaluation of chest pain

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A myocardial bridge is a band of heart muscle that lies on top of a coronary artery, instead of underneath it. First described by pathologists in the early 1920's, myocardial