

who was on peritoneal dialysis, all other patients were on regular hemodialysis. five patients were referred to cardiac surgery as their coronary artery disease was detected during routine coronary angiography before renal transplant.

Results: There was one postoperative death (in-hospital mortality, 6.6%). The patient who died was suffering from morbid obesity with severe LV dysfunction and poor target coronary artery vessels. Three patients underwent renal transplantation after CABG operation and another one patient was recently operated and is waiting for transplant. One patient was complicated with significant perioperative MI after having LAD endarterectomy and surgical reconstruction with LIMA; this was complicated with heart failure and moderate to severe MR. This patient had lost his chance for future renal transplant. One patient had cerebral hemorrhage 2 months after surgery and he recovered.

Conclusions: Cardiac operations in patients with end-stage renal disease may be performed with a fairly low perioperative risk and the perspective of short-term functional improvement and acceptable survival. However, careful selection is mandatory for better outcome.

<http://dx.doi:10.1016/j.jsha.2013.03.041>

Safe introduction of ventricular assist devices into national clinical practice

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Introduction: We report the first national Scottish experience with ventricular assist- devices (VADs) in a selected group of patients for whom short-term VADs (ST-VADs) were used as a salvage 'bridge-to-decision' (BTD) and long-term VADs (LT-VADs) as a 'bridge-to-transplantation/recovery' (BTT/BTR). Method: From January 2010–July 2012, 13 (mean-age 42.4(16–62) years) INTERMACS I patients required emergency ST-VAD support as BTD and 9 (meanage 35.4(16–53) years) INTERMACS I–IV required LT-VADs as BTT/BTR.

Results: Of BTD patients, 8(61.5%) received ST-BiVADs, 3(23.1%) ST-LVADs and 2(15.4%) peripheral CentriMag ECMO. Nine(69.2%) survived to last follow-up: 1(7.7%) is on ST-VAD support, 5(45.5%) bridged to myocardial-recovery and VADexplantation, 1(9.1%) to transplantation and 2(9.1%) to LT-support. Mean durations of ST-support, renal-support and postoperative ICU-stay were 31.3(2–110), 6.6(0–31) and 35.5(1–119) days, respectively. Four(36.4%) early deaths and one after discharge. One(7.7%) stroke, 2(15.4%) acute-limb-ischemia and 6(46.2%) re-explored. No driveline-infections or device-failures. Cumulative survival was 57.1% at 4, 12 and 24 months postoperatively. Of LT-LVAD patients, 6(66.7%) remain on LT-support, 1(11.1%) bridged to myocardial-recovery and VAD-explantation, and another to transplantation. Mean postoperative ICU-stay and LT-support were 19.9(6–56) and 251.3(21–751) days, respectively.

One(1.11%) patient demised after 98 days of support, 2(22.2%) suffered LVAD-induced RV failure, 2(22.2%) required re-exploration for bleeding and only one(11.1%) minor superficial driveline-infection was encountered but no device/pump failure, infection or thrombosis. Cumulative survival was 85.7% at 4, 12 and 24 months of support.

Conclusion: With undue vigilance, complex VAD-therapy can be integrated safely into a national program, treating the most deranged advanced-heart-failure patients, with low rates of complications and high rates of myocardial-recovery.

<http://dx.doi:10.1016/j.jsha.2013.03.043>

Outcomes of acute myocardial infarction in type 2 diabetic yemeni patients using different methods of treatment

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Diabetes (DM) mellitus is a chronic disease that requires continuing medical care and patient self-management education to prevent acute complications and to reduce the risk of long-term complications. Patient with type 2 DM have a two to fourfold increase incidence of disease related to atheroma.

Design and methodology: Our study is a single-centre hospital based cohort prospective (interventional) study.

All of the studied patients were subjected to history, clinical evaluation, biochemical investigation. ECG and Echocardiography were done for them. Interventional procedures were done for all of the patients such as PCI or CABG. Statistical analysis was done by SPSS system. A total of 150 consecutive Yemeni patients were included in this study. One hundred (100) patients were diabetic and fifty (50) patients were control (non diabetic). The diabetic patients were treated by different methods of insulin treatment protocol, 50 patients were treated by insulin infusion therapy (IIT) and 50 patients were treated by sliding scale insulin (SSI) protocol. Anti-ischemic treatment (medications) was given to all the cases and control groups.

Setting of the work: We recruited all patients admitted to the intensive care units (cardiac and noncardiac) at Al-Thawra Teaching Hospital in Sana'a over 12 months (Jan 2007–Dec 2010).

Objectives of the study: Evaluation of the impact of IV continuous insulin infusion technique on the outcome of acute MI as compared to the sliding scale in diabetic patients. Post MI surveillance of patients was also conducted over the next.

Results: Male predominance was evident in this study. Mean (\pm SD) Waist circumference (WC) was significantly higher in diabetic patients (95.4 ± 15.2 cm) than in the control (90 ± 13.3 cm) ($p = 0.032$). Abdominal adiposity measured as, waist to height ratio (WHtR) was found to be more prevalent among diabetic patients (70%)

compared to the control patients (44%), $p = 0.0037$. There was no significant difference between diabetic and non diabetic patients in regards to other cardiovascular risk factors. The mean (\pm SD) admission blood glucose (ABG) level was significantly higher in the diabetic group (17.2 ± 5.6 mmol/l) than in the control group, (6.9 ± 1.3 mmol/l), $p < 0.0001$. Also the mean (\pm SD) HbA1c% showed significantly higher value in the diabetic group ($11.4 \pm 1.42\%$) compared to the control group, ($5.8 \pm 0.64\%$), $p = 0.006$. Heart failure was noted to be more frequent among diabetics treated with (SSI), (34%) than in those treated with (IIT) (19.1%), $p = 0.01$. Arrhythmia was less frequent among diabetics treated with IIT (12%), than those treated with SSI (20%), $p = 0.31$.

Recurrent chest pain found to be more frequent among diabetics treated with IIT (38%) than those treated with SSI (18%), $p = 0.04$.

In contrast, stroke was found to be more frequent among SSI patients (20%) than IIT patients (0%), $p < 0.0001$. As for mortality, it was noted to be more among SSI treated patients (20%) than IIT treated patients (6%), $p = 0.04$.

Conclusion: Insulin infusion therapy in diabetic patients with AMI seems to have better outcomes regarding arrhythmia, stroke and cardiovascular mortality compared to sliding scale insulin therapy.

<http://dx.doi:10.1016/j.jsha.2013.03.044>

Prevalence of internal pudendal artery disease in diabetic patients with erectile dysfunction and angiographically documented multi-vessel coronary artery disease

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Objectives: We set out to explore the prevalence of significant atherosclerotic disease of the internal pudendal arteries (IPA) in diabetic men with erectile dysfunction (ED) and angiographically documented multi-vessel coronary artery disease (CAD).

Background: ED shares common risk factors of CAD, and is increasingly recognized as a well established risk factor for future cardiovascular events.

Methods: We enrolled 30 consecutive diabetic patients with ED undergoing elective coronary catheterization. Erectile function was evaluated using the abbreviated 5-item questionnaire known as the Sexual Health Inventory for Men. Distal aortography was first performed, followed by selective internal iliac arteriography. Significant IPA disease was defined as 50% or more luminal obstruction seen in the projection that best delineates the takeoff of the artery.

Results: The mean age of the whole series was 59.6 ± 8.4 years. The mean duration of diabetes mellitus was 8.1 ± 7.1 years, and the mean duration of ED was 4.3 ± 3.2 years. Significant IPA disease (stenosis/occlusion) was found in 11 (36.7%) patients; unilateral in 6 (20%)

patients, and bilateral in 5 (16.7%) ones. Significant internal iliac artery disease (stenosis/occlusion) was found in 6 (20%) patients; unilateral in 4 (13.3%) patients, and bilateral in 2 (6.7%) ones. Significant IPA disease correlated positively with age and negatively with estimated creatinine clearance ($p < 0.05$ for both).

Conclusions: In diabetic male patients with ED who have angiographically documented multi-vessel CAD, significant IPA obstruction (stenosis/occlusion) is rather frequent, and it correlates positively with age, and negatively with the estimated creatinine clearance.

<http://dx.doi:10.1016/j.jsha.2013.03.045>

Post-operative ICU course of infant below 2.2 kg undergoing cardiac surgery

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Introduction: Infants with low body weight (LBW) are major challenges for post cardiac surgery care. We conducted this study to compare post-operative course and outcome of infant weighing 2.2 kg or less with matching group of infants with normal body weight who underwent similar cardiac surgery.

Methods: We reviewed retrospectively all infants below 2.2 kg who underwent cardiac operation at our institution from January 2001 to March 2011. Cases with LBW (group A) were compared with matching group (group B) of normal body weight infants who had similar cardiac surgery and matching surgical risk category. We compared demographic, ICU parameters, complications and short-term outcome of both groups.

Results: Thirty seven patients were included in group A and 39 in group B. Except for Weight (2.13 ± 0.08 kg in group A vs. 3.17 ± 0.2 kg in group B); there was no statistical difference in demographic data between both groups. Cardiac procedures included coarctation repair, Arterial switch, VSD repair, tetralogy of Fallot repair, systemic to pulmonary shunt and Norwood procedures. Patients in group A had statistically significant difference from group B in term of bypass time ($p = 0.01$), duration of inotropes ($p = 0.01$), duration of mechanical ventilation ($p = 0.004$), number of re-intubations ($p = 0.015$), PCICU length of stay ($p = 0.007$) and mortality (13.5% in group A vs. 0% in group B, p value 0.02).

Conclusion: Patients with LBW below 2.2 kg can go for cardiac surgery with overall satisfactory result but with increase risk of ICU morbidity and mortality.

<http://dx.doi:10.1016/j.jsha.2013.03.046>

A Ventricular assist device, or VAD, is a mechanical circulatory device that is used to partially or completely replace the function of a failing heart. Some VADs are intended for short term use, typically for patients recovering from heart attacks or heart surgery, while others are intended for long term use (months to years and in some cases for life), typically for patients suffering from congestive heart failure. Pumps. The pumps used in VADs can be divided into two main categories - pulsatile pumps, that mimic the natural pulsing action of the heart, and continuous flow pumps.[4]. Pulsatile VADs use positive displacement pumps. In some of these pumps, the volume... Overview of Ventricular Assist Devices. Over the past 2 decades, mechanical circulatory support. (MCS) has offered a major advance in the treatment of patients with end-stage HF.1 Currently, there are three rec Updated national and international data are available online at www.uab.edu/medicine/intermacs, www.isHLT.org/registries/international-registry-for-mechanically-assisted-c, and www.ncbi.nlm.nih.gov/pubmed/28942783. LVADs offer superior survival when compared with optimal medical management in patients who are ineligible for cardiac transplantation. Clinical management of continuous-flow left ventricular assist devices in advanced heart failure. *J Heart Lung Transplant*. 2010 Apr. Placement of a continuous-flow ventricular assist device in the failing ventricle of an adult patient with complex cyanotic congenital heart disease. *Heart Surg Forum*. 2008. 11(3):E143-4.