Current results of primary repair of truncus arteriosus in early infancy

Alaa-Basiouni S. Mahmoud
E-mail address: alaabasiouni@hotmailcom

Background: Repair of truncus arteriosus in early infant period has become standard practice in many centers. We report the current clinical outcomes of primary repair of truncus arteriosus in early infancy at a single institution.

Methods: A retrospective analysis of 31 patients with mean age 2.6 ± 1.3 months (range, 15 days–6 months), and mean body weight 3.4 ± 0.6 kg (range, 2.6–4.7 kg) who underwent primary repair of truncus arteriosus. Data were collected regarding demographics, anatomy, operative data, cardiac intensive care unit, and last available follow-up.

Results: There were four hospital deaths (12.9%); three of them were due to pulmonary hypertension. At median follow up of 8 months (range, 1–100 months) after surgery, there was no late death. One patient was reoperated on for right ventricle-to-pulmonary artery (RV-to-PA) conduit replacement, residual ventricular septal defect repair, and truncal valve repair. One patient was reoperated on twice for truncal valve repair and later on truncal valve replacement. Three patients required percutaneous balloon dilation and stenting of pulmonary artery branches.

Conclusions: Truncus arteriosus can be performed in early infancy with acceptable perioperative mortality and morbidity. Pulmonary hypertension continues to be a risk factor of mortality.

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Long-term outcomes after percutaneous coronary intervention of unprotected left main coronary disease with drug-eluting stents

Husain Alamri, Ali Almasood, Rida Norallah, Kazim Hameed, A. Almoghairi, Saad Alkasab, Moheeb Alabdullah, M. Alotaibi, Menwar Alanazi, Ahmed Amro

Introduction: Most available data indicates that stenting for unprotected left main coronary artery disease (ULMCA) with drug-eluting stents (DES) is safe and effective. At present, surgery is considered the gold standard for optimal revascularization.

Objectives: The aim of this study was to evaluate the short and long term outcome of patients with ULMCA stenosis who underwent percutaneous coronary intervention (PCI) with DES implantation in a single center.

Methods: Coronary stents were implanted into ULMCA in 59 patients. Short and long term total mortality and main adverse cardiac events (MACE): cardiac death, myocardial infarction and additional target lesion or non-target lesion revascularization (TLR) were assessed.

Results: Mean age was 69 ± 13 (29% were females). 23% were emergency/urgent cases. Angiographic and clinical success of PCI was 100%. 8.5% of the cohort underwent Transcatheter aortic valve implantation for severe inoperable aortic stenosis. 52% have significant distal left main disease requiring two stent bifurcation techniques. Follow-up duration was 23 ± 13 months.

In hospital MACE occurred in 10%. In hospital death occurred in 3.4%. Long term total mortality was 11.8%. 3.3% of the cohort died because of non-cardiac problem. Using ARC (academia and research consortium) definition, probable acute stent thrombosis occurred in 5% of the cohort, all of them underwent two stent bifurcation techniques.

Conclusion: Considering high risk characteristics of the study group, ULM stenting is feasible, with probably reasonable short and long term outcomes; however, ULM stenting requiring two stent bifurcation techniques should be reserved for patients who are not appropriate surgical candidates.

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Incidence of clopidogrel resistance in Saudi population, a pilot observation study

Ali Almasood, Husain Alamri, Haytham Sagr, A. Almoghairi, A. Alkhudair, M. Alotaibi

Introduction: Clopidogrel has been widely used to prevent recurrent ischemia in patients with coronary artery disease. However, inter-individual variability in response to clopidogrel has been a inconstant in the clinical setting. The aim of the present study was to investigate the frequency of clopidogrel resistance. There are no data on the responses to clopidogrel in Saudi Population.

Objectives: We sought to evaluate the response to clopidogrel among Saudi patients undergoing coronary angiography.

Methods: Blood samples were drawn at 6–24 h after a 300/600-mg clopidogrel dose. The degree of inhibition of platelets was assessed using the VerifyNow assay (Accumetrics, USA). Patients, who showed ⩽15% inhibition of platelets or >213 PRU (p2y12 reaction unit), were defined as non-responders to clopidogrel treatment.

Results: Seventy patients, with mean age of 60.9 ± 11 (29% are female). A wide inter-individual variability was observed in platelet inhibition (0–64%); 62% patients showed non response to clopidogrel. There were no differences between the patients who responded or not regarding presence of diabetes mellitus, hypertension, BMI or concurrent use of proton pump inhibitors.

Conclusion: The response to clopidogrel was highly variable in Saudi patients with coronary artery disease. The results of the present study confirmed that in vitro clopidogrel non-response is frequent. Further follow up for this cohort to evaluate the clinical impact of it is ongoing.

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