in low rate of stent thrombosis and in-stent re-stenosis (ISR) requiring short duration of dual anti platelet therapy. Catania is neither a BMS nor a DES but somewhat in between.

Methods: This is a prospective, single center, observational cohort study of 33 patients with symptomatic ischemic heart disease with de novo, obstructive lesion of native coronary arteries. The patients were followed up at 12 months after the implantation for the symptoms and any new coronary events.

Results: Of the 33 patients, one patient died due to non cardiac cause, 4 patients were admitted with unstable angina and two patients with angina and positive stress test. The entire 6 patient had significant more than 70% ISR. The target lesion revascularization (TLR) at 12 months was 18.75%

Conclusion: At one year follow up, The Catania stent was found to be associated with a significant ISR with TLR of 18.75%.

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Recombinant activated factor VII (rFVIIa) for uncontrolled bleeding post cardiac surgery

Aly Makram Habib, Ahmed Yehia Mousa, Zohair Yousif Al Halees

Objectives: To review recombinant activated factor VII (rFVIIa) as rescue therapy in persistent severe hemorrhage in post cardiac surgical patients at our institution.

Design: A retrospective observational study.

Patients and methods: From 2004 till April 2010, all patients who received rFVIIa for bleeding of 3 ml/kg/h or more for two consecutive hours after cardiac surgery were included. Surgical bleeding management, patient temperature correction, blood products replacement, and coagulant drugs administration preceded the rFVIIa.

Results: The mean for chest tube drainage was significantly lower after the administration of rFVIIa compared to that before (1.2 ± 1.08 vs. 4.1 ± 2.3 ml/kg/h, $P = 0.042$). There was a significant decrease in the median of: aPTT (43.8 vs. 46.6 s, $P = 0.027$), ACT (128.9 vs. 131.7 s, $P = 0.05$), and INR (1.0 vs. 1.43, $P = 0.001$) after the administration of rFVIIa compared to that before. The median of fibrinogen level and the platelet count showed non-significant increase after the rFVIIa doses (2.57 vs. 2.43 gm/l, $P = 0.34$ and 106 vs. 101 X109/l, $P = 0.27$ respectively). Six patients (3.7%) needed re-exploration after the administration of rFVIIa. Five patients (3.2%) had thrombo-embolic complications. The small dose (40–50 mcg/kg) was comparable to high dose ($\geqslant$80 mcg/kg) of rFVIIa in terms of: mean chest tube bleeding within the first 4 h, blood products required in the first 24 h, re-exploration for bleeding or thrombotic complications.

Conclusion: rFVIIa produced significant reduction in chest tube bleeding post cardiac surgery with reduction in the administration of blood products. Small dose rFVIIa can be considered effective for intractable bleeding after cardiac surgery.

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Mid-term outcome of extracardiac Fontan operation using Contegra conduit

Deraz Al Sayed Salem, Arfi Muhammed Amin, Sharfi Hussain Masroor, Fouad Ismail Muhamed, Baslaim Ghassan, Hussain Arif

Background: Limited surgical experience of constructing Fontan circulation using Contegra conduit has raised concerns of high risk of thrombotic occlusion of Fontan circuit.In this study we intended to retrospectively evaluate thrombotic complication and survival of patients undergone extra-cardiac Fontan procedure.

Methods: Medical records of all patients who underwent Fontan completion from January 2002 to December 2010 were reviewed. Echocardiographic, catheterization, and peri-operative data were recorded. Outcome of Fontan procedure using Contegra conduit was compared with those constructed with Dacron tube. All patients received anticoagulation using heparin in the immediate postoperative period and later on Coumadin to maintain therapeutic level of INR. The primary outcome was the prevalence of thrombotic complication and the survival in the two groups. Chi-square was used to compare the categorical variables. Independent 2 sample *t*-test was used to compare the pre-operative and postoperative numerical variables in the two groups and Kaplan meier curve and Log Rank test were generated to compare the time interval of the two primary outcomes of the two groups.

Results: Seventy-six patients underwent Fontan procedure, using Contegra ($n = 47$) and Dacron tube ($n = 29$). The two groups matched with regard to demographic variables, preoperative hemodynamic data, intra-operative and post-operative outcome. Thrombotic complications occurred within the first 30 days in 6/47 (13%) in Contegra and 3/29 (10%) in Dacron group and the difference was not significant ($p = 0.983$). Relative risk of thrombosis in Contegra group was 0.949 (95% CI = 0.8–1.3). The mean follow up for the whole group was 87 months. The mean follow up for Contegra group was 70 months and 95 months for the Dacron group but this difference was not significant ($p = 0.304$). Nine patients died: Contegra 7/47, Dacron, 2/28 ($p = 0.486$). Relative risk of dying in Contegra group was 0.909 (95% CI = 0.8–1.1).

Conclusion: This is the largest series evaluating the outcome of extra-cardiac Fontan procedure using Contegra conduit. Our results suggest that using Contegra conduit does not increase the risk of thrombotic complication or death compared to Fontan completion using Dacron tube.

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