4. Nashef SA: Validation of EuroSCORE in North American cardiac surgery. Eur J Cardiothorac Surg 22:101-5, 2002.
5. Madhur Malik: Is EuroSCORE applicable to Indian patients undergoing cardiac surgery? Annals of Cardiac Anaesthesia. 13:241-245, 2010.
6. Naser Ali Khan: Predictive value of euroscore in Pakistani cardiac surgical patients. Pakistan Armed Forces Medical Journal 62(2):249-254, 2012.
7. Pradhan B: Validation of European Score for Cardiac Operative Risk Evaluation in cardiac surgical patients in Nepal JIOM 37(1):67-71, 2015.
8. Hosmer DW: Applied logistic regression. 2nd Ed. New York: John Wiley and Sons: 2000.
9. Michel P: Logistic or additive EuroSCORE for high-risk patients? Eur J Cardiothorac Surg. 23(5):684-7, 2003.
10. Harikrishnan S: Pulmonary hypertension in rheumatic heart disease. PVRI Rev 1:13-9, 2009.

OP-51

Is type D personality as important as classic risk factor for coronary artery disease?

R. Khanali[1], Mahdi Najafi[2], G. Sarami[3], A. Jalali[4]

[1]M.Sc of Education In Medical Surgical Nursing, Nursing Midwifery Faculty, Tehran Medical Science, Islamic Azad University, Tehran, Iran, [2]Tehran Heart Center, Tehran Universiity of Medical Sciences, Tehran, Iran, [3]Statistics Department, Kharazmi University, Tehran, Iran, [4]Research Department, Tehran Heart Center, Tehran University of Medical Sciences, Tehran, Iran

Introduction. There are questions about the Mechanisms relating type D personality to poor health status. The autonomic nervous system function has been suggested as a mediator. Type D personality by the tendency to experience negative emotions and inhibit self- expression in social situations, has been shown to increase the risk of mortality two- to three- fold in patients with coronary artery disease (1).

Methods. This study is a part of NPHYDO 4D (Non-Physical Determinants of Outcome: type D Personality, Depression, Downturn in energy, coping with emotional Distress) research study. We included 600 men and women who were candidates for coronary artery bypass graft in Tehran Heart Center. They were evaluated for type D personality (DS14 questionnaire), Demographic and clinical characteristics including age, gender, diabetes mellitus, hypertension, hyperlipidemia, family history, smoking, opium addiction, the history of myocardial infarction and serum level of creatinine. The outcome determinant was length of stay after cardiac surgery (LOS$\geq$7 days).

Results. A total of 600 patients participated, 454 men (75.7%) and 146 women (24.3%). 178 patients (29.7%) had Type D personality. 393 patients had social inhibition (SI: 65.5%) and 241 patients had negative affect (NA: 40.2%). Type D personality was associated with LOS$\geq$7 days (unadjusted pvalue= 0.006, OR: 1.673, CI: 1.16-1.347). Multivariate analysis showed that type D personality is a determinant of LOS$\geq$7 days adjusting for confounding factors (Table). The history of myocardial infarction, hyperlipidemia, smoking and opium addiction as well as the family history were not associated with LOS$\geq$7 days.

Discussion. It seems that non-physical determinant of outcome such as Type D personality could be considered as independent predictors of morbidity.

Table – Adjusted Predicting factors for length of stay after Coronary Artery Surgery (LOS$\geq$7 days)

	Adjusted			
		95% C.I EXP		
	OR	Lower	Upper	P value
Type D personality	1.509	1.004	2.267	0.048
Hypertention	0.895	0.611	1.309	0.567
Diabetes melitus				<0.001
Oral	1.407	0.803	2.465	0.233
Insulinia	0.372	0.133	1.044	0.06
Diet	0.548	0.361	0.831	0.005
Alcohol history	1.336	0.837	2.133	0.224
Education status				0.003
illitrate	0.824	0.5	1.36	0.449
primary school	0.52	0.311	0.871	0.013
high school	0.376	0.208	0.681	0.001
Sex (women)	0.825	0.511	1.333	0.433
Age	1.027	1.004	1.049	0.018
Creatinin	1.823	1.002	3.318	0.049

REFERENCE

1. Kupper N, Pelle A, Denollet J: The association of type d personality with autonomic and hemodynamic response to the cold peressor test. Psychophysiology Journal 50 (12):1194-201, 2013.

OP-52

Outcomes and long-term survival of patients undergoing coronary artery bypass graft surgery; the controversial role of opium as a risk marker

Mahdi Najafi[1,2], L. Jahangiry[3], H. Mortazavi[2], A. Jalali[2], A. Karimi[4], A. Bozorgi[5]

[1]Anesthesiology department, Tehran Heart Center, Tehran Universiity of Medical Sciences, [2]Research Department, Tehran Heart Center, Tehran University of Medical Sciences, Tehran, Iran, [3]Department of Health education & Promotion, School of Public Health, Tabriz University of Medical Sciences, Tabriz, Iran, [4]Department of cardiothoracic surgery, Tehran Heart Center, Tehran University of Medical Sciences, Tehran, Iran, [5]Department of Cardiology, Tehran Heart Center, Tehran University of Medical Sciences, Tehran, Iran

Introduction. Coronary artery disease includes high percentage of cardiac surgical patients and defining outcome predictors is essential for risk estimation and provision of services [1]. Since there are controversial and limited knowledge for the role of opium, we aimed to evaluate long-term survival and the impact of chronic opium consumption in isolated Coronary Artery Bypass Graft patients.

Methods. Cohort of 566 isolated Coronary Artery Bypass Graft patients as THC-COM, was conducted. Long-term 6.5-year overall and opium-stratified survival, adjusted survival curves based on opium consumption as well as possible predictors of all-cause mortality using multiple cox regression were evaluated.

Results. 6.5-year overall survival was 91.8%; 86.6% in opium consumers and 92.7% in non-opium consumers (P=0.035). Multiple predictors of all-cause mortality included age, opium, body mass index, ejection fraction, diabetes mellitus and cerebral vascular disease. Patients with positive history of

opium consumption significantly tended to have lower ejection fraction, higher creatinine level and higher prevalence of myocardial infarction. After adjustments for confounding variables, we found a hazard ratio of 2.16 for the risk of mortality in opium addicted patients with a borderline p value (P=0.06).

Discussion. Despite the simultaneous impact of smoking as a confounding variable and also the cardio-protective role of opium in ischemic phase suggested in some studies, opium might not seem unreasonable to be considered as a contributing factor in worse long-term survival of Coronary Artery Bypass Graft patients in addition to advanced age, low ejection fraction, diabetes mellitus and cerebral vascular disease.

REFERENCE

1. Yoo JS, Kim JB, Jung SH, Choo SJ, Chung CH, Lee JW: Coronary artery bypass grafting in patients with left ventricular dysfunction: predictors of long-term survival and impact of surgical strategies. Int J Cardiol 168(6):5316-5312, 2013.

Oral Abstract Presentations 306
Friday, May 13, 2016
10:00 - 10:30, Auditorium 2

OP-53

Impact of learning curve on outcome of left ventricular assist device (LVAD) implantation in a monocentric cohort

Philippe Gaudard, J. Eliet, N. Zeroual, M. Mourad, R. Coves, P. Rouviere, P. Colson

CHU Montpellier, France

Introduction. The institutional experience of LVAD implantation may have an important impact on outcomes of this therapy (1). In our centre, the first LVAD was implanted in 2008. The number of implantation by year increased in 2012 after specialization of one surgeon and augmentation of the number of referent physicians for selection, perioperative care and follow up of these patients. We compared the outcome of all LVAD patients implanted before and after this new organisation.

Methods. This is a retrospective analysis of patients implanted with a LVAD from 2008 to 2012 (period 1) and after 2012 (period 2). We have recorded patient characteristics, severity scores at admission, ICU and hospital stay, LVAD related complications and 1-year mortality. These data were compared between the 2 periods (quantitative expressed as median with Mann Whitney test, qualitative as frequencies with percentage with Fisher exact test).

Results. Among 41 patients who had LVAD implantation, 19 (46%) were implanted during period 1 and 22 (54%) during period 2 (age 61 vs 60.5y, SAPS II 36 vs 39.5, Intermacs classification 3 vs 3, respectively, NS). No significant differences were observed in incidence of reoperation (32 vs 18%) and postoperative right ventricular failure (42 vs 27%). In period 1, 47% of patients required postoperative dialysis but only 9% in period 2 (p=0.01). Early device related infection (driveline, pocket, mediastinitis, endocarditis before discharge) incidences were more frequent in period 1 (32% vs 5%, p=0.04). Late driveline infection (55 vs 38%, NS) and long term complications including aortic regurgitation, stroke, pump thrombosis, gastrointestinal bleeding (53 vs 38%, NS) were not significantly different in this small population. Hospital discharge with LVAD tended to improve from 58 to 77%, NS p=0.18. ICU stay (16 vs 13d) and ICU mortality (26 vs 14%) were not different but 1-year mortality (58 vs 23%, p=0.03) improved strongly between the 2 periods.

Discussion. These results suggest, in a modest LVAD centre, that improvement of organisation with a specialized team for LVAD management and increase in volume of implantations may reduce incidence of acute complications like acute kidney injury and profound device infections and improve long-term survival.

REFERENCE

1. Lietz K, et al: Impact of center volume on outcomes of LVAD implantation as destination therapy: analysis of the Thoratec HeartMate Registry, 1998 to 2005. Circ Heart Fail 1:3-10, 2009.

OP-54

Predicting vasoplegia after continuous flow left ventricular assist device implantation, using a newly developed prediction score

Mark Wouter Kolenbrander[1], N. de Jonge[2], N. Marczin[3], JM Dieleman[1], A. Huisman[4], JC Schwarzenberger[5], F. Ramjankhan[6], WA van Klei[1], EEC de Waal[1]

[1]University Medical Center Utrecht, Department of Anaesthesia, Utrecht, The Netherlands, [2]University Medical Center Utrecht, Department of Cardiology, Utrecht, The Netherlands, [3]Imperial College, Section of Anaesthesia, Pain Medicine and Intensive Care, London UK, [4]University Medical Center Utrecht, Department of Clinical Chemistry and Hematology, Utrecht, The Netherlands, [5]University of California Los Angeles, David Geffen School of Medicine, Department of Anaesthesia, CA, USA, [6]University Medical Center Utrecht, Department of Cardiothoracic Surgery, Utrecht, The Netherlands

Introduction. Longterm mechanical circulatory support for the surgical treatment of end-stage heart failure aims to prevent non-cardiac organ dysfunction. However, assist device implantation is often accompanied by vasoplegia, leading to multisystem organ dysfunction and/or failure. The aim of this study was to evaluate the accuracy of predicting post-operative vasoplegia using a newly developed prediction score.

Methods. In this retrospective study, patients scheduled for primary continuous flow left ventricular assist device (cfLVAD) implantation in a 10-years period (2006-2015) were included. Vasoplegia was defined as the presence of at least three of following parameters: mean arterial pressure < 50 mmHg, systemic vascular resistance < 800 dynes·s·cm-5, cardiac index > 2.5 l·min-1·m-2, norepinephrine > 100 ng·kg-1·min-1. This condition needs to be present for at least three consecutive hours in the first 48 postoperative hours. Based on prior research and the amount of patients developing postoperative vasoplegia, the Vasoplegia Prediction Score (VPS) was developed, which examines the following factors: (1) preoperatively used medications: dobutamine, milrinone, angiotensin converting enzyme inhibitors/angiotensin receptor blockers/amiodarone, loop diuretics and aldosterone antagonists (categorical values); (2) preoperatively measured C-reactive protein and pulse pressure and (3) calculated EuroscoreII (numerical values).

Results. Of 184 included patients, 1 patient died during the implantation procedure due to uncontrollable bleeding. Sixty-