Impact of optimal medical therapy (OMT), versus optimal medical therapy plus revascularizations (OMTR) on all-cause mortality, in patients with IHD

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Background: Currently, there is no significant difference between OMT versus OMTR on all-cause mortality in patients with IHD. There is no data in this region.

Objectives: Evaluate the impact of OMT versus OMTR on primary end point of all-cause mortality in patients with IHD.

Method: Data was collected, retrospectively, from the electronic database for all patients with IHD (n=2,692) attending Cardiovascular Disease Management Program (CVDMP), KAMC-Riyadh, between April 2000 and October 2011. Patients with no follow-up visits (n=59), or had non obstructive CAD (n=280) were excluded. OMT is an integral component of routine care within CVDMP. Data was analyzed using SPSS.

Results: Mean age was 60±10 years, 22% were female, and average follow-up was 40±33 months. Baseline characteristics were similar for both groups with exception of LVEF which was 38% versus 46% (p<0.001), and documented heart failure (HF) 60% versus 31% (p<0.001), respectively in OMT and OMTR. Of the enrolled patients (n=2353), 86% (n=2031) underwent revascularization, while 14% (n=322) remained on OMT for the following reasons; 18% (n=59) refused intervention and 82% (n=263) were declined intervention by the treating team. All-cause mortality was 3.3% (n=87) in the total population; 2.2% (45/2031) in the OMTR group versus 11% (35/322) in the OMT group (P<0.0001).

Conclusion: Mortality was higher in OMT group, which had a higher prevalence of HF and lower baseline LVEF.

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IV Paracetamol as a sole agent for postoperative pain relief in adult cardiac surgical patients after median sternotomy

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Introduction: Various pain control strategies for pain relief of cardiac surgical patients after median sternotomy were tried include central neuraxial blockade or selective nerve blocks, and drugs such as opioids, and non-steroidal anti-inflammatory drugs (NSAIDS). Paracetamol (Perfalgan, Bristol Meyers Squibb) is available in IV formulation and is being used in many centers as an adjunct to analgesia regimen. In our practice, we have found that IV paracetamol started at regular intervals after shifting the patient to cardiac surgical ICU(CSICU), helps in significantly reducing the analgesic requirement consequently patients become less sedated after cardiac surgery.

Methods: After ethics committee approval, and informed patient consent, we did a prospective cohort study of 52 adult cardiac surgical receiving IV paracetamol as the primary pain control agent. A standard anesthesia and analgesia technique was used for all the patients. Postoperatively IV fentanyl infusion was continued at 1 mcg/kg/h till extubation. IV paracetamol was started 30 min before extubation given 1 g (over 30 min) IV and continued 6 h till next 72 h or till chest tube removal. Pain control was assessed by visual analogue scale (VAS) and target VAS value of 3 or less than three was considered adequate. VAS was assessed at extubation, at 3, 6, 12, 24, 36 and 48 h after extubation. The regimen was considered successful if only two or less than two doses of IV fentanyl and/or less than 4 doses of oral tramadol were required to supplement IV paracetamol postoperatively.

Results: The patient age ranged from 24 to 78 years, 8 of them were female, CABG was performed in 14 patients, AVR in 8 patients, CABG plus MVR in 6 patients, CABG plus AVR in 10 patients, MVR plus RFA in 6 patients, ASD closure in 4 patients and pulmonary valve implantation in 2 patient. We found that paracetamol was successful as the sole analgesic agent in 38 patients (73%), in 10 patients (19.2%) IV paracetamol was primary regimen (with fentanyl/tramadol as adjunct) and in 4 patients (7.6%) patients IV paracetamol regimen was unsuccessful in pain relief.

Conclusion: IV Paracetamol may be used as a sole agent for pain relief with successful results after median sternotomy in selected patients in which opioids, NSAIDS or regional blocks are not indicated or produce undesirable side effects. The results need to be reproduced in a larger group of patients and after determining equipotent doses of opioids, case control studies should be done to evaluate the effects of IV paracetamol after median sternotomy.

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Clinical and prognostic comparison between Middle-East and Indian subcontinent patients following acute coronary syndrome

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Background: Data comparing acute coronary syndrome (ACS) patients from the Middle East with those from the Indian subcontinent is scarce. The aim of this
Methods and Results: This was a prospective, multinational, observational study of ACS patients admitted to 65 hospitals in 6 Middle Eastern countries during the period between October 2008 and June 2009, as part of Gulf RACE–II (Registry of Acute Coronary Events). Analyses were performed using univariate and multivariate statistics. The Middle Eastern Arab group was significantly older (60 versus 49 years; p < 0.001), hypertensive (51% versus 36%; p < 0.001), diabetic (42% versus 34%; p < 0.001), with prior myocardial infarction (MI) (22% versus 13%; p < 0.001) and higher GRACE risk score (27% versus 8%; p < 0.001). Indian subcontinent patients were more likely to be smokers (55% versus 29%; p < 0.001) presenting predominantly with ST-elevation MI (57% versus 39%; p < 0.001). The Middle Eastern cohort suffered more congestive heart failure (15% versus 9%; p < 0.001), re-current ischemia (18% versus 9%; p < 0.001), re-infarction (2.6% versus 1.2%; p = 0.001), cardiogenic shock (7.0% versus 3.0%; p < 0.001) and received less evidence-based treatment. On multivariate analysis, Middle Eastern Arabs had higher 1-year mortality compared to those from the Indian subcontinent (adjusted odds ratio, 1.81; 95% CI: 1.19–2.74; p = 0.005).

Conclusions: Middle East Arabs were associated with higher rates of coronary risk factors, more complicated in-hospital course and a higher long-term mortality when compared to patients from the Indian subcontinent.

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Nurses’ satisfaction dimensions and intention to stay in Prince Sultan cardiac center QASSIM


Background: Job satisfaction is an important component of nurses’ lives that can impact on patient safety, quality of care, commitment to the organization, productivity, performance, retention and turnover.

Aim: The purpose of this study is focused on the predictive effects of organizational commitment, perceived organizational support, transformational leadership, professional communication, decision making, autonomy, level of professional development and accountability to the degree of job satisfaction.

Methodology: A crosssectional descriptive study. All nurses at our center (total of 120 nurses) were given a self-administered questionnaire to determine their level of satisfaction in relation to satisfaction dimensions. The instrument consisted of the demographic information, which included: age, gender, marital status, educational degree, years of experience in own country and years of experience in PSCCQ. Job satisfaction instrument constituted of a five-point Likert scale. Results: 99/110 nurses respond to the questioner (96 females and 3 males). The overall satisfaction score (from 500 point) was 352.6 ± 85 for female and 349.2 ± 52 for male nurses. Among demographic data, we found that the years of experience is the single item affecting overall satisfaction score (p = 0.05), with those who spent 4–5 years are the most satisfied. Low satisfaction scores were encountered mainly with regards salaries and accommodation facilities while higher scores were encountered at tasks given especially for junior staff. Other items include communication with others and professional development was given average score. 15% of our nurses have intention to change.

Conclusion: The study result is a good indicator for staff satisfaction, staff retention and guide future plan for performance improvement.

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Assessment of myocardial viability using early systolic mitral annular motion velocities responses to dobutamine infusion in patients with previous myocardial infarction

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Background: Dobutamine stress echocardiography (DSE) is widely used for detection of myocardial viability. The main limitation of DSE is its subjective interpretation. Assessment of mitral annular motion velocities with tissue Doppler imaging is simple and quantitative measurement.

Objective: It is to determine the relationship between myocardial viability and regional systolic mitral annular motion velocity response to dobutamine stress in patients with previous myocardial infarction with pulsed tissue Doppler imaging (TDI).

Methods: Our study group included 101 patients with previous myocardial infarction. All the patients underwent conventional DSE and dobutamine stress tissue Doppler echocardiography (DSTDE) measuring velocities of presystolic wave (SW1) and peak systolic wave (SW2) at rest and during low-dose dobutamine infusion.

Results: After exclusion of the normokinetic walls, we analyzed 505 walls (Table 1).

Using the conventional DSE as the gold standard for detection of myocardial viability, the sensitivity of the DSTDE using SW1 for detection of viability was 94.8% and its specificity was 91.7%, while the sensitivity using SW2 for detection of viability was 87.8%, and its specificity was 81.5%.

Conclusion: The presystolic wave during DSTDE showed a greater sensitivity and specificity for the prediction of myocardial viability than the systolic wave.