

**P1 - Posters - Intensive Cardiac Care**

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## High Frequency ECG in Detecting Ischemia in Patients with Chest Pain

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**Background:** Continuous monitoring of ST-segment changes from 12-lead ECG has been proposed to assist in the evaluation of pts with chest pain and acute coronary syndrome (ACS). We introduce a novel technology for detecting ischemia by analysis of high-frequency QRS (HFQRS) components. The aim of this study was to evaluate the usefulness of HFQRS for early diagnosis of ischemic episodes in pts hospitalized due to chest pain.

**Methods:** 43 pts (56±10 yo, 31 men) admitted to a chest pain unit for observation, ST monitoring, biomarker retesting and cardiac imaging (SPECT, CCT, Echo and PCI) were continuously monitored by high-resolution 12-lead ECG (12.5±3 hours). Pts were stratified by the likelihood of experiencing ischemic events: high (positive imaging test), medium (negative imaging with high risk of ACS by the ACC/AHA guidelines) and low (negative imaging with low or intermediate risk of ACS). Morphological HFQRS indices and conventional ST levels were extracted from the signal-averaged ECG. Receiver operating characteristics was used to determine cut-off values for HFQRS indices.

**Results:** ST-segment analysis was negative for ischemic events in all 43 patients. Positive HFQRS indices were obtained in 5 of 10 patients with high likelihood of ischemia (Fig A). HFQRS indices were negative in 7 of 9 pts with medium and 22 of 24 pts with low likelihood of ischemia. The number of positive HFQRS leads was directly related to the likelihood of ischemic events, increasing from 1.5±0.8 for the low-likelihood group to 2.6±1.3 for the high-likelihood group (p<0.005, Fig B).

**Conclusions:** HFQRS indices are superior to conventional ST monitoring in detecting ischemic episodes, in patients hospitalized with chest pain. HFQRS analysis is a promising technology for early diagnosis and management of ACS patients.

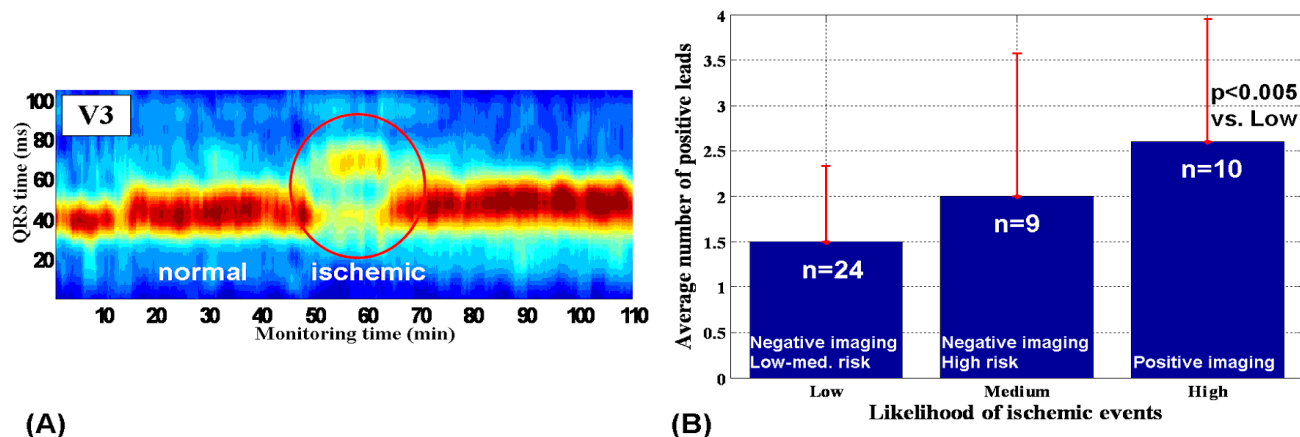


Figure 1: A HFQRS morphological change during suspected ischemic episode (A), and the average number of positive HFQRS leads vs. the likelihood of ischemic events (B).

## **Hemofiltration, a New Hope for Devastatingly Deteriorating Cardiac Patients.**

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Samer Kasem<sup>1</sup>, Ibrahim Jasmawie<sup>1</sup>, Vered Nachliely<sup>1</sup>, Lina Levit<sup>1</sup>, Ilana Volodarsky<sup>1</sup>, Orly Ezra<sup>1</sup>,  
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Continuous veno-venous hemofiltration (CVVH) has gained wide acceptance within intensive care units as a method of renal replacement therapy. Small and medium sized molecules are removed by convection and replacement fluid is infused, thus preserving hemodynamic stability. Hemofiltration is most suitable in patients with cardiogenic shock and renal failure, where conventional hemodialysis may cause hemodynamic instability. It may also be used in patients with severe heart failure complicated with edema, fluid accumulation and renal failure, and in patients after out of hospital cardiac arrest. Hemofiltration has been shown to be effective in preventing the deterioration of renal function due to contrast-agent-induced nephropathy after coronary interventions. We recently started a project of hemofiltration in our ICCU patients. The results of our first twelve patients treated with Hemofiltration are as follows: Three patients with cardiogenic shock and acute renal failure- two recovered fully and were discharged, and one died. Four patients with out of hospital cardiac arrest- all regained full consciousness and were discharged. One patient with acute renal failure underwent cardiac catheterization without deterioration of renal function. Four patients with septic shock, were all metabolically corrected, one stabilized clinically and three died. We conclude that hemofiltration may be beneficial in selected cardiac patients with devastating deterioration.

## Prolonged Intra- Aortic Balloon Counterpulsation Support: Patients Clinical Profile and in Hospital Course: Four Years Analysis from the ABCD-1 Trial (Aortic Balloon Counterpulsation Device).

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**Background:** Intra aortic balloon pump (IABP) is used for varieties of cardiovascular emergencies. The literature describes the patients who will benefit from this device, however, the patients clinical profile and course under prolong mechanical support is not well established

**Aim:** To characterize patients profile who need long term mechanical support.

**Methods:** Data was gathered from computerized medical records in 162 consecutive patients who underwent IABP insertion between the years 2004 - 2008.

Patient's clinical characteristics, indication for balloon insertion and in hospital outcome are presented.

**Results:** IABP therapy was divided into two groups: < 4 days and ≥ 4 days.

|                             | IABP <4 d<br>(N=109) | IABP ≥ 4 d<br>(N=53) | P- Value |
|-----------------------------|----------------------|----------------------|----------|
| Age                         | 66.8±14.1            | 67.8±11.4            | 0.63     |
| Male                        | 80(73.4%)            | 33(62.3%)            | 0.15     |
| Diabetes Mellitus           | 47(43.1%)            | 33(62.3%)            | 0.02     |
| Prior stroke                | 21(19.3%)            | 22(41.5%)            | <0.003   |
| PVD                         | 25(22.9%)            | 17(32.1%)            | 0.21     |
| Renal failure               | 23(21.1%)            | 19(35.8%)            | 0.04     |
| Anterior MI                 | 57(52.8%)            | 32(60.4%)            | 0.57     |
| LAD                         | 38(36.9%)            | 27(54.0%)            | 0.06     |
| Cardiogenic shock           | 32(29.4%)            | 17(32.7%)            | 0.88     |
| Pulmonary edema             | 9(8.3%)              | 10(19.2%)            | <0.008   |
| Mechanical ventilation      | 42(38.5%)            | 28(52.8%)            | 0.09     |
| Clopidogrel +IIB/IIA        | 56(51.9%)            | 40(75.5%)            | <0.006   |
| Moderate- Severe MR         | 19(19.6%)            | 18(36.0%)            | 0.03     |
| Need for CABG               | 48(44.0%)            | 15(28.3%)            | 0.05     |
| <b>In- Hospital Course:</b> |                      |                      |          |
| Major Bleeding              | 25(23.8%)            | 25(48.1%)            | .070     |
| Congestive heart failure    | 35(33.4%)            | 35(68.6%)            | <0.0001  |
| Acute renal failure         | 43(41.0%)            | 38(73.1%)            | <0.0001  |
| Sepsis                      | 18(17.1%)            | 24(46.2%)            | <0.0001  |
| In- hospital mortality      | 18(16.5%)            | 10(18.9%)            | 0.71     |

**Conclusion:** Prolong IABP therapy was needed mainly in diabetics, in patients with CHF, prior strokes and those who were treated by aggressive antiplatelet regimen. Long term use of this therapeutic modality was associated with detrimental hospital course.

## **Right Ventricular Infarction: Clinical-Angiographic Correlations**

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Right ventricular infarction (RVI) occurs in nearly half of inferior STEMI cases. Since the predominant blood flow to the RV is carried by the RV branch originating from the mid right coronary artery (RCA), one would expect proximal RCA lesions to cause RVI. Yet, in more than half of these cases there is no evidence of RV ischemia, and clinical and hemodynamic features of RVI are present in only 10-15% of these cases. Our study aim was to find clinical and angiographic predictors for development of clinically significant RVI among inferior STEMI cases. **Methods:** All STEMI cases in the RCA territory, during 2007-2008 were analyzed. We assessed the correlation between angiographic data to the development of clinically significant RVI. **Results:** Out of 51 patients with RCA related STEMI, 7(14%) had clinically significant RVI. Among the non-RVI group 14(32%), 17(38%) and 13(30%) patients had proximal, mid and distal-RCA culprit lesions respectively. while in the RVI group 6/7 (85%) had proximal RCA lesion ( $p=0.01$ ). Ten of 44 (23%) in the non-RVI compare to 6/7(85%) in RVI groups had significant multi-vessel disease ( $p=0.002$ ). **Conclusions:** Proximal RCA lesions are a prerequisite but not sufficient condition for the development of clinically significant RVI. We suggest that multi-vessel disease has important role in RVI evolvement, probably interfering with left-right system collaterals, septal LV contribution to RV function, and increased diastolic RV pressures due to diffuse ischemia. Thus, multi-vessel PCI might be considered in cases with STEMI in the proximal RCA in the presence of multi-vessel disease.

## PREtreatment with CLOpidogrel in LOW Doses in Stable Angina Pectoris Patient Before Elective Coronary Angiography ± ad hoc Percutaneous Coronary Intervention Radial versus Femoral Approach PRECLOD Trial

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**Introduction:** Pretreatment (Pretr) with 300mg Clopidogrel (Clop) before planned PCI in stable AP patients (pts) is recommended by Guidelines. Pretr with 600mg Clop before elective coronary angiography (ECAG) with optional immediate percutaneous coronary intervention (PCI) increased bleeding complications in femoral approach.

**Aim:** We studied efficacy and safety of 300 mg Clop pretreatment for ECAG in the same population in radial versus femoral approach.

**Methods:** In retrospective manner we compared outcome in 2 groups of pts underwent ECAG±PCI: Group A – without (100 pts) and Group B with Clop Pretr (102 pts).

**Patients' characteristics:** 202 consecutive pts at age 60±10, 68% males.

There were significantly more pts with hypertension, hyperlipidemia and NYHA class II-III in group B. ECAG by radial approach was done in 77% pts of group A and 46% in group B (p<0.0001).

**Results:**

| Variable            | ECAG±PCI            |                  | P   |
|---------------------|---------------------|------------------|-----|
|                     | No Plavix (Group A) | Plavix (Group B) |     |
| Number of pts       | 100                 | 102              |     |
| In hospital MACE    | 2.0 %               | 1.9%             | NS  |
| Major bleeding      | 1.0 %               | 0.0 %            | .49 |
| Port entry bleeding | 1.0 %               | 2.9 %            | .62 |
| MACE 180 d          | 5.0 %               | 1.9%             | .27 |

| Variable            | Femoral          |               |     | Radial           |               |    |
|---------------------|------------------|---------------|-----|------------------|---------------|----|
|                     | No Plavix (N=16) | Plavix (N=23) | P   | No Plavix (N=46) | Plavix (N=25) | P  |
| Major Bleeding      | 0.0              | 0.0           | -   | 2.2%             | 0.0           | NS |
| Port entry bleeding | 0.0              | 13.0%         | .24 | 0.0              | 0.0           | -  |
| MACE 180 d          | 6.2              | 0.0           | .41 | 2.2 %            | 0.0           | NS |

**Conclusions:** Pretreatment with 300mg Clopidogrel before ECAG ± *ad hoc* PCI is reasonable and safe, especially in pts approached by radial artery.

## **Mild to Moderate Heart Failure on Admission Predicts One Month Mortality in St-Elevation Acute Coronary Syndrome Treated by Primary Percutaneous Coronary Intervention**

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**BACKGROUND:** Admission heart failure (HF) is a powerful predictor of prognosis in ST-elevation acute coronary syndrome (STE-ACS). **AIM:** To evaluate the short-term outcomes of mild to moderate HF patients with STE-ACS treated by primary percutaneous coronary intervention (PPCI) in contemporary era. **METHODS:** 1208 patients undergoing PPCI for STE-ACS were studied. HF was defined as Killip class 2 or 3 on admission. Cardiogenic shock was excluded. **RESULTS:** 157 patients admitted with HF (13.0%). They were older ( $p<0.0001$ ), more females ( $p<0.03$ ), less smokers ( $p<0.04$ ) and had more frequently multivessel disease ( $p<0.008$ ), more decreased left ventricular function (LVEF $<40\%$ ) ( $p<0.001$ ), larger enzymatic infarct size ( $p<0.001$ ), and renal dysfunction ( $p<0.0006$ ). "No-reflow" phenomenon was observed more frequently in HF patients (10.0 % vs 5.1%,  $p<0.05$ ). No difference was observed between two groups in terms of time to admission, preprocedural TIMI 0-1 flow, collateral circulation, post-procedural TIMI 3 flow. GP IIb /IIIa antagonists were used in 70% of all patients. Unadjusted mortality rate for 30d was 2.3 % for Killip 1, 3.4% for Killip 2 and 18.4% for Killip 3 patients ( $p<0.0003$ ). At multivariate analysis renal failure (OR 1.28, 95% CI 1.05-1.82,  $p<0.01$ ), multivessel disease (OR 2.35, 95% CI 1.37-4.04,  $p<0.001$ ), LVEF  $<40\%$  (OR 1.49, 95% CI 1.16- 1.92,  $p<0.001$ ) and Killip class (OR 1.77, 95% CI 1.05-2.98,  $p<0.02$ ) were found to be independent predictors of 30d mortality rate. **CONCLUSION:** Mild to moderate HF on admission (Killip class 2 and 3) remains independent predictor of 30d mortality in STE-ACS.



## **Atropine Injection: Simple and Cheap Tool for Increasing Conclusive Exercise Stress Tests**

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### Background

Treadmill stress test is the most useful tool for assessing patients with chest pain. However, significant percentages of the patients do not achieve a target heart rate.

We evaluated the administration of atropine in order to increase the number of tests with conclusive results.

### Methods

Seventy patients (20 females and 50 males, mean age  $50.2 \pm 10.6$ ) hospitalized due to chest pain were referred for a treadmill stress test.

All patients were eligible for the use of atropine. Patients who experienced fatigue, shortness of breath or leg pain during sub maximal heart rate, were given intra venous atropine in doses of 0.5 mg/min until a test conclusion (target heart rate or positive test) or until a maximal dose of 2 mg.

### Results

Twenty patients (28.5%) required atropine, with a mean dose 1.3mg, nine patients (45%) achieved target heart rate, three of them had a positive test. The mean increase in heart rate after atropine administration was 27.25 beats per minute. This management increased the number of conclusive tests from 50 (71%) to 59 (84%).

Inability to reach target heart rate was attributed to chronotropic incompetence and low work capacity. Frequent complaints after atropine injection were transient dizziness and dry mouth, without any serious events.

### Conclusions

1- Atropine administration is a safe and potential useful in patients who can not achieve target heart rate during treadmill stress test.

2- The use of atropine during exercise test can help to increase the number of conclusive tests by a cheap rapid and safe manner.

## **The Combination of the Killip and TIMI Classifications for Early Risk Stratification of Patients with Acute Myocardial Infarction**

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**Background:** The Killip classification as well as the TIMI score has been proved to be useful methods for early risk stratification of patients with acute myocardial infarction. The Killip classification is simpler and last time consuming compare to the TIMI score. The purpose of the following study was to evaluate the added value of applying the TIMI score to patients pre-stratify by the Killip classification.

**Methods and results:** One thousand seven hundred and seventy three (1773) consecutive acute myocardial infarction patients were hospitalized in twenty-five coronary care units operating in Israel, and were followed up for 1 year.

Higher Killip class was found to be associated with increased 1-year mortality: 6%, 24%, 42% and 60% in Killip 1 to 4 respectively. Applying the TIMI score to Killip 1 patients resulted in farther stratifying the patients to low, medium and high risk patient groups when stepping up from TIMI  $\leq 2$ , TIMI 3-5 and TIMI  $\geq 6$ : 1%, 8% and 19% at 1-year. Applying the TIMI score to Killip  $\geq 2$  patients did not result in further stratify them and did not share the same clinical relevance as for Killip 1 patients.

**Conclusions:** Killip classification is a useful method for early risk stratification of acute myocardial infarction patients. Applying the TIMI score to patient with Killip 1 is beneficial.

## **The Transient Left Ventricular Apical Ballooning Syndrome or Tako-Tsubo Cardiomyopathy: A Single Center Experience**

Renee Rotzak, Ricardo Tobar, Michael Krivisky, Vladimir Turkisher, Israel Tamari,  
Yoseph Rozenman

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Background: Apical ballooning Syndrome (ABS) or Tako-Tsubo Cardiomyopathy is a cardiac syndrome characterized by transient akinesis of the mid and apical segments of the ventricular wall provoked by stress in the absence of significant coronary artery disease.

This syndrome was first described in 1991 in Japan; since then case series have been reported in Europe and in USA. We are reporting our experience with 14 patients treated.

Methods: between 2003-2008 we prospectively evaluated 14 consecutive patients according to the proposed Mayo Clinic Criteria for the diagnosis of ABS. All patients underwent coronary angiography (CA) and serial echocardiographic studies (TTE). six patients underwent left Ventriculography (LV).

Results: The median age was 60 years, 90% women, 70% postmenopausal. Clinical presentation included chest pain (80%) dyspnea (40%) pulmonary edema (20%) and hypotension (10%). The onset of ABS was preceded by emotional or physical stressor (8 and 6 patients respectively).

Admission electrocardiogram showed ST elevation in the precordial leads in 90% and T wave abnormalities in 20%.

Deep T wave inversion occurred in all patients 2-3 days after admission and prolongation of corrected QT occurred in 70%.

All patients had mildly elevated serum troponin levels.

All patients had normal coronary arteries and EF was  $33 \pm 8$  (LV in 6 patients) with akinetic apex and midventricular wall and hyperkinetic base.

TTE showed low EF at presentation  $35 \pm 7$  with typical wall motion abnormalities, 2 had LVOT obstruction, 4 had MR, and 1 patient developed apical thrombus on the third day.

Within 3 weeks Left Ventricular systolic function recovered completely (EF 56%) There were no hospital or follow up deaths. Hospital stay range from 4 to 14 days.

Conclusions: Transient abnormal Left Ventricular contraction pattern with ballooning appearance, which spares the base of the heart, typical of Tako-Tsubo was present in all patients.

Complications in our series were: LVOT obstruction, MR at the acute phase and apical thrombus in the sub acute phase.

Differentiating transient LV apical ballooning from acute MI is important and the only mean to do so is urgent coronary angiography and LV and serial TTE.

## **Levodimendan as a treatment Option for Cardiac Amyloidosis**

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Patients with cardiac amyloidosis and advanced heart failure have limited treatment options. Levosimendan, a novel calcium sensitizer and potassium channel opener is known to have positive lusitropic as well as positive inotropic effects. We evaluated the utility of this drug on consecutive patients with cardiac amyloidosis, acute decompensated heart failure and restrictive filling pattern of mitral valve inflow in echo-doppler.

The patients, 2 females and 2 males, average age of  $77.1 \pm 5.1$  years, were all hospitalized in the intensive care unit due to acute decompensated heart failure. Two of them suffered of acute deterioration of renal function and needed hemofiltration. Echo-Doppler study revealed persevered LV function ( $EF=48 \pm 5\%$ ), with mitral valve inflow deceleration time (DT) of  $127 \pm 39$  msec. Endocardial biopsy revealed amyloid deposits in three of the patients and the fourth was diagnosed by characteristic echo findings.

The patients were treated with Levosimendan (beginning with 0.05 microgram/kg/min and up to 0.2 microgram/kg/min over 24 hours). In all patients dramatic clinical improvement was noticed. The signs and symptoms of right and left heart failure diminished. Post Levosimendan renal function improved and hemofiltration was not needed. The average DT were improved to  $158 \pm 25$  msec ( $p=0.04$ ). One of the patients presented also with systolic dysfunction (despite patent coronaries) improved post Levosimendan (EF increased from 33% to 50%). All patients remained stable and did not need re-hospitalization in a follow up of  $7 \pm 6.3$  months.

Conclusion: Levosimendan is an important treatment option for advanced heart failure related to cardiac amyloidosis.

## **Levodimendan as a treatment Option for Cardiac Hibernation post Coronary Revascularization**

Menachem Nahir, Dahud Qarawani, Diab Ganem, Usra Halawila, Yonathan Hasin  
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Cardiac hibernation might prevent the improvement of myocardial performance after coronary revascularization in ischemic cardiomyopathy. Calcium homeostasis might be disturbed in hibernation. Levosimendan is a novel drug indicated for acute decompensated heart failure. It offers calcium sensitizing and potassium channel opening effects. These effects may improve function in hibernating myocardium.

We evaluated the efficacy of the drug in patients with akinesis of non-scar ischemic myocardium after percutaneous coronary intervention (PCI) procedure.

Fourteen consecutive patients with severely reduced LV function and akinesis of myocardial segment have been treated with PCI. An echocardiography was done before, and 24 hours after the procedure. Five patients showed improved of regional wall motion and were excluded from the study. In nine patients (2 females, age  $77.4 \text{ y} \pm 15.6$  (57-84) no improvement was seen on the first day post PCI and were treated with Levosimendan (beginning with 0.05 microgram/kg/min and up to 0.2microgram/kg/min over 24 hours). A third echocardiographic examination was performed 24 hour following cessation of Levosimendan and was compared to the baseline echocardiography. Overall significant improvement was observed in LVEF ( $26.8 \pm 5.5$  vs.  $33.5 \pm 2.4$   $p=0.03$  T-test). Of note, only six patients responded to the therapy (EF  $25.2 \pm 5.1$  vs. 32.2 percent,  $p=0.004$ ) and three did not (EF 34 vs. 35%). The responders showed improvement mainly of regional wall motion abnormality correlating to the previously blocked coronary artery. All patients were discharge from the hospital in stable condition.

Conclusion: Levosimendan is an important treatment option for severely reduced LV function with hibernation post revascularization for ischemic cardiomyopathy

## **Long Term Complications and Predictors for Intra Aortic Balloon Counterpulsation (IABC) Removal after Prolong Support: The ABCD-1 Trial**

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**Background:** IABC still holds a risk for complications despite technical advances. Late complications and predictors for its removal after prolong support remain unclear.

**Objectives:** To assess the complications and predictors for IABC removal after prolonged use of the device.

**Methods:** We collected data from computerized medical records of 162 consecutive patients who underwent IABC insertion between the years 2004- 2008.

Analysis was performed after dividing the number of days with balloon support into 2 groups: < 4 days (group 1) and  $\geq$  4 days (group 2).

**Results:** 109/162 (67.2%) pts were in group 1 (mean age  $66.8 \pm 14.1$ ) and 53/162 (32.7%) pts were in group 2 (mean age  $67.8 \pm 11.4$ ).

Group 2 had more diabetes mellitus ( $p < 0.02$ ), prior stroke ( $p < 0.08$ ) and renal failure ( $p < 0.04$ ). Indications for IABC insertion were similar in both groups except for pulmonary edema which was higher in group 2 ( $P < 0.08$ ). Large proportion of patients in group 2 received concomitant clopidogrel and IIb/IIIa antagonists ( $p < 0.06$ ). Limb ischemia occurred only in 5 pts (3.1%) with no difference between groups. During the hospitalization period, patients in group 2 had more infections ( $p < 0.0001$ ), CHF ( $p < 0.0001$ ), major bleeding events ( $p < 0.07$ ) and acute renal failure ( $p < 0.0001$ ). Multivariate regression analysis showed that the use of clopidogrel was the significant predictor for IABC removal ( $p < 0.05$ ) after prolonged support due to increased bleeding tendency.

**Conclusion:** The main reasons for IABC removal after prolong use are increased bleeding due to clopidogrel treatment, infectious complications and acute renal failure. Vascular complications were lower than expected.

## **Predictors of Mortality after Prolonged Intra Aortic Balloon Counterpulsation (IABC) Support: ABCD-1 Trial**

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**Background:** Death rate in patients under IABC support is approximately 21%, half of them occurring while the balloon still counterpulsates. Causes for mortality are different in various studies.

**Objectives:** To evaluate causes and predictors of mortality in patients under prolonged support ( $\geq 4$  days).

**Methods:** Data was collected from computerized medical records in 162 consecutive patients who underwent IABP insertion between the years 2004 - 2008. Patients with balloon support  $< 4$  days were excluded.

**Results:** 53/162 (32.7%) needed prolong support. Mean age  $71.4 \pm 10.1$ ; 13/53 (24.5%) were males. In-hospital mortality occurred in 10 patients (18.9%). Seven (21.9%) additional patients died within 30 days. Multivariate backward stepwise regression analysis using age, gender, hypertension, diabetes, prior PCI or CABG, thrombocytopenia, acute renal failure, infections, CHF, LVEF% and days with balloon as potential predictors showed that age ( $p < 0.02$ ), male gender ( $p < 0.02$ ), diabetes ( $p < 0.05$ ) and days with IABC ( $p < 0.08$ ) were significant predictors of death. Addition of mitral insufficiency, need for mechanical ventilation and pacing did not change the model. There was nearly an 11% increase in the probability of death for every year older the patient was. Male patients were 11 times more likely to die than females. Diabetics were 6 times more likely to die than non diabetics. The odd of death was 1.5 times for every additional day the IABC was still in place.

**Conclusion:** Our data demonstrate that predictors for death in pts with prolonged IABC support are male gender, older age, diabetes and longer periods with balloon counterpulsating.

## **The Patient's Resources and Its Relationship to Adjustability Process After Acute Myocardial Infarction**

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**Background:** Myocardial Infarction (MI) is a life-threatening episode, which causes patient extreme stress. This study is based on Hobfoll's Conservation of Resources Theory (1988, 1989), which discusses the understanding of stress-creating mechanisms, as well as coping methods in which one utilized personal resources (optimism), social resources (a stable marriage), and environmental resources (education, occupation).

**Aims of the study:** To examine the connection between the perception of resource loss that occurred during hospitalization following MI and the process of physical and social adjustability.

**Methods:** The study included 62 men hospitalized after MI, aged 35-65, married, working, Hebrew readers and speakers. They responded to a self-report questionnaire which assessed social support and perceived resource loss. Physical and psychological adjustment was assessed 4 weeks after discharge.

**Results:** The amount of social support was positively correlated with adjustability process. A positive correlation was found between the fear of employment loss and adjustability to emotional distress. Perceived resource loss and physical and psychological adjustment were unrelated.

**Conclusions:** The research revealed five factors of resource loss in those suffering from MI: damaged health, diminished functioning in one's family as well as socially, employment loss, loss of joy in eating, and diminished self-worth. The study findings could potentially contribute to the growth of welfare in hospitals.