

**Patients and methods:** A 63 years old male with history of two coronary stents insertion, has developed chest tightness due to a tight coronary lesion. He hesitated to undergo another coronary procedure. The other patient was 42 years old female who developed chest pain, palpitation and difficult breathing. A diagnosis of dilated cardio-myopathy due to viral myocarditis was made. She hesitated towards a pace-maker insertion and was also put on medications. Both patients were scheduled for basic cupping therapy on the upper back and front of chest.

**Results:** Dramatic symptomatic relief and speeded clinical recovery was documented.

**Conclusion:** Cupping can be a promising adjuvant therapy in speeding recovery of ischemic and inflammatory myocardial conditions and is worthy of further re-determination for wider applications.

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## SHA 058. Predictors of in-hospital mortality in patients with heart failure at King Abdulaziz Medical City Cardiac Center – Riyadh, Saudi Arabia

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**Background:** Heart Failure (HF) is a progressive, burdensome and complex syndrome with many etiologies. As individuals age and patient survival is prolonged by modern therapeutic interventions, the prevalence, incidence and hospitalization of HF patients have increased.

**Aim:** To determine in-hospital mortality rate and identify significant predictors of mortality in patients admitted with HF at KAMC Cardiac Center.

**Methods:** Retrospective cohort study of patients admitted to KAMC cardiac center due to HF within the two years 2008 and 2009 ( $n = 475$ ). Data of patient characteristics, medical history and clinical findings were collected. Multiple logistic regressions were used to relate clinical characteristics to the odds of mortality, and significance was considered at  $p \leq 0.05$ .

**Results:** 475 HF cases were admitted, stage B (5.1%), C (89.9%) and D (5.1%); primary HF (56.6%). 30 deaths (6.3%) occurred, 20 due to cardiac causes (66.7%). Mortality in univariate analysis was associated with: old age (OR = 2.56,  $p = 0.015$ ); history of renal disease (OR = 2.42,  $p = 0.01$ ); treatment with inotropes (OR =

56.8,  $p < 0.001$ ); ventilatory support (OR = 24.3,  $p < 0.001$ ); absence of treatment with  $\beta$ -blockers (OR = 4.94,  $p < 0.0001$ ), ACE/ARBs (OR = 4.90,  $p < 0.0001$ ), or aldosterone antagonists (OR = 4.37,  $p = 0.002$ ); high heart rate(HR) (OR = 2.21,  $p = 0.028$ ); low systolic pressure (SBP) (OR = 3.01,  $p = 0.009$ ); high creatinine (OR = 2.10,  $p = 0.05$ ); high BUN (OR = 5.45,  $p = 0.001$ ) and high Trop I(OR = 7.44, $p < 0.001$ ). After adjusting for other variables, high BUN (OR = 11.61,  $p = 0.002$ ), low SBP (OR = 4.02,  $p = 0.014$ ), high heart rate (OR = 2.60,  $p = 0.046$ ), and absence of treatment with  $\beta$ -blockers (OR = 4.27,  $p = 0.001$ ), or adosterone antagonists (OR = 3.55,  $p = 0.035$ ), were independent predictors of mortality.

**Conclusion:** In patients admitted with HF, significant predictors of mortality were: Azotemia, absence of  $\beta$ -blockers and aldosterone antagonists treatment, high HR and low SBP.

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## SHA 059. Comparative study of the cardioprotective effects of local and remote preconditioning in ischemia/reperfusion injury

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**Aim:** the present investigation was directed to compare the cardioprotective effects of local and remote preconditioning in ischemia/reperfusion (I/R) injury.

**Methods:** male albino rats were randomly assigned into 10 groups. Groups 1 and 2 were normal and I/R groups, respectively. Other groups were subjected to 1, 2, 3, 4 cycles of local or remote preconditioning before myocardial I/R (40 min/10 min). Heart rates and ventricular arrhythmias were recorded during I/R progress. At the end of reperfusion, plasma creatine kinase-MB (CK-MB) activity and total nitrate/nitrite ( $\text{NO}_x$ ) were determined. In addition, lactate, adenine nucleotides, thiobarbituric acid reactive substances (TBARS), reduced glutathione (GSH) and myeloperoxidase (MPO) activity were estimated in the heart left ventricle. Histological examination was also performed to visualize the protective cellular effects of the best selected cycle of local or remote preconditioning.

**Results:** Three cycles of local or remote preconditioning were effective in reducing ventricular arrhythmias, CK-MB release, lactate accumulation and elevated MPO activity as well as preserving myocardial adenine nucleotides. Three cycles of local preconditioning was more effective than that of remote preconditioning in improving the light microscopic and ultrastructural examinations.

**Conclusion:** it could be concluded that 3 cycles of local or remote preconditioning provided more effective cardioprotection among different cycles of preconditioning examined.

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