RISK FACTORS PROFILE IN EGYPTIAN PATIENTS WITH ACUTE CORONARY SYNDROME: A MULTI-CENTRE OBSERVATIONAL STUDY: PHASE II OF THE EGYPTIAN CARDIOVASCULAR-RISK FACTORS PROJECT

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Background: Low- and middle-income countries have experienced an increase in the prevalence of CVD and 80% of the global burden of CVD occurs there. Despite the universal agreement upon the traditional cardiovascular risk factors (CVRFs) for coronary artery disease, yet the distribution of these CVRFs may be different in various geographical areas and could be affected by gender differences as well as among different age groups. The availability of such information in Egypt and middle east countries could help implementing appropriate prevention programs.

Methods: A cross sectional, multicenter, observational study of patients presenting to coronary care units (CCUs) in Egypt and diagnosed with acute coronary syndrome (ACS). A web-based case report form (CRF) was designed to collect demographic data, anthropometric measures, history of CVRFs, laboratory parameters as well as noninvasive and invasive procedures performed. Statistical analysis was performed, and date were compared in men and women and in different age groups.

Results: The study population comprised 1681 subjects, of whom 425 (25%) were women, most women (72%) were aged over 55y, while 46% of men were aged 55 y or younger (P < 0.001). A larger proportion of men presented with STEMI (49%), while other presentations (unstable angina and NSTEMI) were more frequent in women (32% each; P < 0.001). Central obesity (defined as a waist/height ratio >0.5) was extremely prevalent in both men (80%) and women (90%). Men were more frequently current smokers (62%, vs 5% of women); P < 0.001. Women had a higher frequency of most other traditional risk factors, including type 2 diabetes (53% vs 34% of men), hypertension (69% vs 49%), dyslipidemia (60% vs 45%), and obesity (71% vs 41%; P < 0.001 for all). Diagnostic coronary angiography was performed in a similar proportion of men and women (62% and 59% respectively). However, radial access was more likely to be used in men (P < 0.001), vs 34% of men.

Conclusions: Obesity, smoking, hypertension and diabetes were the most common traditional risk factors among Egyptian patients presented with ACS, the incidence of hypertension and obesity was significantly higher in Egyptian females than males. Smoking was the more prevalent CVRF in younger age groups compared to hypertension in older patients. Only 54% of the STEMI patients underwent primary PCI, this was because many of the centers that involved in the study were non- PCI capable centres. This is an interim analysis for phase II of the first Egyptian study to evaluate the pattern and prevalence of risk factors among Egyptian patients using web-based software for randomization. After completion of data collection, this study may help in providing a database for the initiation of a national guideline and appropriate management protocols.

Keywords: Acute coronary syndrome, Risk factors, Atherosclerosis, Egypt, Cardiorisk

THE PREDICTIVE VALUE OF R-WAVE PEAK TIME ON NO-REFLOW IN PATIENTS WITH ST-ELEVATION MYOCARDIAL INFARCTION TREATED WITH A PRIMARY PERCUTANEOUS CORONARY INTERVENTION

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Background. Coronary no-reflow (NR) is a dreadful complication of primary percutaneous coronary intervention (pPCI) that is seen in nearly 50% of cases. A great effort is being done to discover simple tools that could Predict such a complication. We aimed primarily to study the predictive power of R-wave peak time (RWPT) on NR.

Methods. From October 2017 to March 2018, we enrolled 123 patients with STEMI treated with pPCI at Benha University Hospital and National Heart Institute. We measured RWPT from infarct-related artery (IRA) leads and assessed the development of NR in all finally included 100 patients (after exclusions).

Results. Based on occurrence of NR, patients were divided into 2 groups; Group I (n= 39) with NR and group II (n=61) without NR. Smoking, DM, HTN, longer reperfusion times and higher thrombus burden were significantly associated with NR. Both pre- and postprocedural RWPT were significantly higher in group I than Group II. Preprocedural RWPT > 46 milliseconds predicted NR with a sensitivity and specificity of 79.5% and 86.9% respectively (AUC 0.891, 95% CI 0.82 - 0.962, P < .001). In adjusted comparison, this analysis was performed, and date were compared in men and women and in different age groups.
multivariate analysis, preprocedural RWPT was found to be among independent predictors for NR (OR: 8.8, 95% CI: 1.8–43.3, P = 0.008). The predictive power of preprocedural RWPT was statistically non-inferior to STR%(difference between area under curves = 0.029, P = 0.595).

Conclusion. RWPT is strongly associated with and significantly predicts the development of NR. This association was statistically non-inferior to the well-known association between STR% and NR.

Keywords: ST-elevation myocardial infarction, no-reflow

PLASMA LEVELS OF CHEMERN, LEPTIN AND PSORIASIN AS POTENTIAL MARKERS OF SUBCLINICAL ATHEROSCLEROSIS IN PSORIASIS PATIENTS

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Results: Plasma levels of hs-CRP, chemerin, leptin and psoriasis as well as CIMT and EFT were significantly elevated in psoriasis patients compared to controls (P<0.001). CIMT and EFT were significantly positively correlated with PASI, plasma hs-CRP, chemerin, leptin and psoriasis (P<0.001). Moreover, significant positive correlation was demonstrated between PASI and plasma hs-CRP, chemerin, leptin and psoriasis (P<0.001). Multiple linear regression analyses showed that chemerin, leptin and psoriasis were independently correlated with CIMT and EFT and exhibited high significance for predicting their values.

Conclusion: It can be concluded that chemerin, leptin and psoriasis might represent an important link between psoriasis and atherosclerosis. Measurements of plasma chemerin, leptin and psoriasis along with CIMT and EFT seem to be valuable potential markers of subclinical atherosclerosis in patients with psoriasis.

Keywords: soraiain, leptin, Atherosclerosis

GENDER-RELATED DIFFERENCES IN RISK FACTORS AND TREATMENT STRATEGIES IN PATIENTS WITH ACUTE CORONARY SYNDROME ACROSS EGYPT: PART OF THE CARDIO-RISK PROJECT

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Background. Strategies to improve acute coronary syndrome (ACS) prevention and management in low-and-middle-income countries are hampered by economic considerations and by the paucity of data from these countries. Egypt is the most populous country in Middle East and North Africa, and has >15% of the cardiovascular deaths in the region.

Methods. Data was collected from 1681 patients diagnosed with ACS in 30 coronary care units in 11 governorates across Egypt, spanning the Mediterranean coast, Nile Delta, and Upper Egypt. Risk factors and management procedures were compared in men and women.

Results. Women constituted 25%. Premature ACS was common, with 43% of men aged <55y, and 67% of women <65y. Most men had STEMI (49%), while a larger percentage of women had unstable angina and NSTEMI (32% each; P<0.001). Central obesity was present in 80% of men and 89% of women, with 32% of men and women having atherogenic dyslipidemia. Men were more frequently smokers (62%, vs 5% of women; P<0.001). A larger proportion of women had type-2 diabetes (53% vs 34% of men), hypertension (69% vs 49%), dyslipidemia, and obesity (71% vs 41%; P<0.001 for all). There were no gender differences in most diagnostic and therapeutic procedures, but among STEMI patients, 51% of men underwent primary PCI compared to 46% of women (P=0.064).

Conclusions. Obesity, central obesity and smoking are extremely prevalent in Egypt, likely contributing to an increased burden of premature ACS. The recognized tendency in many parts of the world to treat men more aggressively was absent or not pronounced. Atherosclerosis, Cardiornisk, Risk factors, Dyslipidaemia

Keywords: Acute coronary syndrome, Risk factors, Atherosclerosis, Cardiornisk

ELEVATED HIGH SENSITIVITY C-REACTIVE PROTEIN AFTER PERCUTANEOUS CORONARY INTERVENTION IN PATIENTS WITH STABLE CORONARY ARTERY DISEASE: A PROOF-OF-CONCEPT STUDY

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Objectives. Elevated levels of high sensitivity C-reactive protein (hs-CRP) is associated with increased incidence of cardiovascular events. We aimed to investigate whether iatrogenic disruption of plaques by percutaneous coronary intervention (PCI) in patients with stable coronary artery disease (CAD) would result in a meaningful rise in hs-CRP that could impact short-term outcome.

Methods: From September 2017 to May 2018, we measured hs-CRP in 60 patients divided into 3 groups; group I (20 patients with stable CAD undergoing elective PCI), group II (20 patients with NSTE-ACS undergoing PCI) and group 3 (20 patients with stable and unstable CAD undergoing angiography without PCI). Samples for hs-CRP testing were withdrawn before the procedure, 6 and 24 hours later.

Results: In group I, levels increased from 2.4 ± 0.6 at baseline to 8.2 ± 1.7