Results: There was a significantly lower DTN (p = 0.038) and DTB (p = 0.049) times in the radial group (50.75 ± 16.80 versus 54.50 ± 19.92 & 58.50 ± 16.55 versus 62.00 ± 20.09, respectively), while DTN and DTB time for the entire group study was 52.63 ± 18.29 minutes and 60.25 ± 18.26 minutes respectively. In our study there was a significantly higher (p = 0.019) total procedural time used in the radial group (33.50 ± 9.04 versus 28.50 ± 14.24), a significantly higher (p = 0.005) fluoroscopy time used in the radial group (18.15 ± 5.24 versus 13.30 ± 5.09), a significant higher amount of dye used in the TRA vs TFA group (180.00 ± 52.31 versus 155.00 ± 45.59).

Conclusion: The current study concluded that TRA is an effective and safe approach for the management of acute STEMI including over 55 years old patients, TRA shows less bleeding, less local vascular complications, less hospital stay and less costs than TFA if performed by experienced operators. Finally, femoral access doesn’t increase morbidity and mortality, and is still needed in less experienced centers.

Prognostic value of asymmetric dimethylarginine in patients with acute coronary syndrome

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Background: Atherosclerosis is the primary cause of acute coronary syndrome, with most cases occurring from the disruption of atherosclerotic plaque in a coronary artery stimulating platelet aggregation and thrombus formation. Asymmetric dimethylarginine (ADMA) is a naturally occurring chemical found in blood plasma. It is a metabolic by-product of continual protein modification processes in the cytoplasm of all human cells. ADMA inhibits the three isoforms of nitric oxide. It can also generate superoxides, and it interfaces with other targets in the cell. High ADMA values inhibit nitric oxide production needed to promote vasodilation.

Aim of the work: Determining the value of the asymmetric dimethylarginine in patients with acute coronary syndrome as a predictor of major adverse cardiac events (MACE) &mortality during hospitalization & up to 6 months.

Patients & methods: This study included 90 patients who were admitted to the cardiac care unit in Ain shams university hospitals with acute coronary syndrome. The patients received optimum medical therapy, in addition, they underwent coronary angiography with either primary or facilitated percutaneous coronary intervention (PCI). Full labs with ADMA marker were obtained within 24 hours of admission, then follow up during hospitalization & up to 6 months after discharge was done regarding the occurrence of major adverse cardiac events (MACE) &mortality. the patients were divided into three groups (A, B&C) according to their admission value of ADMA.

Results: The study population consisted of seventy seven patients (eleven patients were lost during follow up) with an age ranged from 29 yrs to 85 years. The mean age in years was 55.26 ± 9.09. It included sixteen females (20.8%) and sixty one males (79.2%). There was statistical significance between ADMA &LDL, HDL & total cholesterol. Also there is statistical significance between ADMA marker &the prognosis & between the patients groups & the prognosis. The cut off point of ADMA marker is >1.2

Conclusion: Asymmetric dimethyl arginine (ADMA) marker has a prognostic value in patients with acute coronary syndrome, in which patients with higher levels of ADMA are associated with higher incidence of MACE & higher mortality than patients with low levels of ADMA.

Potential impact of the new AHA/ACC hypertension guidelines on Egyptian population

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Objective: The substantial changes in the cutoffs for defining hypertension made by 2017 ACC/AHA hypertension guidelines provoked extensive debates in numerous medical societies. The current study analyses the potential impact of the 2017 ACC/AHA guidelines in diagnosing hypertension and initiating antihypertensive treatment on a large sample of the Egyptian population. We also compared different guidelines for the optimum number of blood pressure readings (comprising the average of 2-3 readings), to the approach of using the mean of 5 automated blood pressure readings, regarding their implications for diagnosing hypertension.

Methods: 1389 cardiac patients aged (median (25th, 75th percentile) 54 (18, 87 y) presenting at Alhyatt Heart and Vascular center, Alexandria, Egypt were studied. Five consecutive blood pressure measurements were taken, with one-minute intervals. High SBP and DBP were classified according to the mean of the 5 readings as SBP >140 and DBP >90 mmHg according to all guidelines, and >130, >80 mmHg according to the new AHA/ACC guidelines.

Results: Prevalence of hypertension in the study population increased from 40.3 % and 35.7% according to ESC, Mean of 5 readings respectively, to 62% when using the 2017 AHA/ACC cutoffs. Classification of hypertension was altered as follows: (a) percentage of patients classified as high normal changed from 29.6%, 25.6% according to 2017 AHA/ACC cutoffs. Classification of hypertension was altered as follows: (a) percentage of patients classified as high normal changed from 29.6%, 25.6% according to 2017 AHA/ACC to 17.4% as per to the new AHA/ACC. (b) patients diagnosed with stage 1 hypertension percentages changed from 29.6%, 25.6% according to ESC, Mean of 5 readings respectively to 40.3% according to the new AHA/ACC guidelines. Whereas percentage of patients recommended to receive antihypertensive medications increased from 40.3%, 35.7% according to ESC, Mean of 5 readings respectively to 49.7% according to the new AHA/ACC protocol.

Conclusion: In light of the recent updates made in November 2017 by the AHA and ACC, it was necessary to review and compare the latest updates with currently utilized guidelines in our daily practice. It resulted in a substantial increase in the proportion Egyptians defined as hypertensives, which in turn made the treatment strategy more aggressive and challenging.