Conclusion: The vast majority of our patients are diabetic and this technique could resolve the PCI limitations in those patients even after DES implantation.

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Predicting occult paroxysmal atrial fibrillation (AF) in transient ischemic attack (TIA) or strokes
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Relevance: AF accounts for 75,000 cases of strokes per year, yet 40% of strokes may have no apparent etiology. Echocardiography marks the etiology and echocardiography markers help identify those at risk of PAF.

Purpose: Paroxysmal AF (PAF) is a significant risk factor for TIA/stroke. However, routine Holter/ECG often fail to detect PAF. Our aim was to evaluate laboratory and echocardiographic parameters to predict PAF.

Participants: 428 patients were enrolled, 220 males and 208 females, 51% and 49%, respectively, a mean age of 72.3 years. PAF present group 68 patients (16%) versus PAF absent group 360 patients (84%).

Method: The 24-h-Holters recorded for evaluation of TIA/strokes were analyzed for PAF. Patients were divided into PAF present or absent groups.

Analysis: Multivariate regression analysis was used to investigate BNP (Brain Natriuretic Peptide), D-dimer, mitral regurgitation (MR), left atrial size (LA), left ventricular hypertrophy (LVH) and diastolic dysfunction.

Results: BNP, MR, LA size, LVH, diastolic dysfunction were significantly higher in patients showing PAF on their Holters than those without PAF. Multivariate logistic regression analysis demonstrated BNP 400 pg/ml (OR, 14.8; 95% CI 6.5–45, P < 0.01), MR (OR, 8.1; 95% CI 3.12–26.2, P < 0.001), LA size 4.0 cm (OR, 5.2; 95% CI 2.01–14.6, P < 0.002), LVH 1.2 cm (OR, 4.9; 95% CI 1.2–6.88, P < 0.001), diastolic dysfunction (OR, 6.7; 95% CI 2.3–27.2, P < 0.021).

Conclusion: Patients with cryptogenic TIA and associated elevated BNP, LVH, MR, enlarged LA, and diastolic dysfunction may have PAF as an etiology.

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Clinical presentation and short term outcome of acute coronary syndromes in native young Saudi population
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Background: Literature about acute coronary syndromes (ACS) in young population in the Middle East is scarce. Moreover, such data in native young Saudi Arabians is lacking.

Methods: We retrospectively reviewed our data base between January 2006 and May 2009, 924 patients were diagnosed to have ACS. Among them 107 patients (11.6%) met our definition of young [66 (61.7%) male ≤ 45 years, and 41 (38.3%) female ≤ 55 years].

Results: The overall age was 42.3 ± 7.9 years. Diabetes mellitus prevalence was 36.4% in males and 63.4% in females, while 30.0% of males and 34.1% of females had hypertension. Active smoking was reported in 40.9% of the males but none of the females. A body mass index ≥ 25 was found in 30.3% of males and 34.1% of females. Overall 21.5% of the patients had dyslipidemia. Past history of coronary artery disease was documented in 18 patients (16.8%). The discharge diagnoses were ST-segment elevation myocardial infarction in 41 (38.3%) patients, non-ST-segment elevation MI in 36 patients (33.6%) and unstable angina in 30 (28.0%) patients. Coronary angiography was performed in 86 patients (80.4%), among them 42 patients (48.8%) had single vessel and 24 patients (27.9%) had ≥ 2 vessel disease. One patient had in-hospital acute ischemic stroke and more women (29.3%) were discharged with clinical diagnosis of heart failure.

Conclusion: Several common cardiovascular risk factors have alarming incidences in native young Saudi adults presented with ACS. This finding necessitates an aggressive approach for population based intervention.

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Comparison of echocardiography and CT angiography for measurement of aortic annulus diameters before transcatheter aortic valve implantation
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Objectives: Accurate assessment of the aortic annulus diameter is crucial for successful transcatheter aortic valve implantation (TAVI). We compared the aortic annulus diameter obtained by echocardiography and computed tomography (CT) angiography in patients referred for TAVI.

Methods: On echo, the aortic annulus diameter was measured from parasternal long axis view in systole. An average of two measurements was calculated. On CT, the annulus was measured in cross-sectional view (perpendicular to the flow axis). Three diameters were obtained; maximum (Dmax), minimum (Dmin) and the mean (Dmean) (from cross-sectional area (CSA)) diameters (Fig. 1). The echo and CT measurements were performed independently. The degree of agreement was assessed by Bland-Altman plot.

Results: Twenty-eight patients (mean age 76 ± 8 years, males were 21) with severe symptomatic aortic stenosis comprised the study population. The aortic annulus diameters were 22 ± 1.4 mm on echo and 26.6 ± 2.8 mm, 20.4 ± 1.9 mm and 23.5 ± 1.9 mm on CT Dmax, Dmin and Dmean, respectively. Regardless of the CT method, there was good agreement between the echo and CT measure.