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

http://dx.doi:10.1016/j.jsha.2012.06.246

Predicting occult paroxysmal atrial fibrillation (AF) in transient ischemic attack (TIA) or strokes Chandni Sharma, Mrinal Sharma

Relevance: AF accounts for 75,000 cases of strokes per year, yet 40% of strokes may have no apparent etiology. Etiology of these strokes may be occult PAF. The laboratory and echocardiography markers may help identify those at risk of PAF.

Purpose: Paroxysmal AF (PAF) is a significant risk factor for TIA/stroke. However, routine Holters/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%) and 208 females, 51% and 49%, respectively, a mean age of 72.3 years. 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.

http://dx.doi:10.1016/j.jsha.2012.06.247

Comparison of echocardiography and CT angiography for measurement of aortic annulus diameters before transcatheter aortic valve implantation Nada Alshayeb, Ahmed Alsaileek, Ahmad Omran

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.