of aortic annulus. The mean diameter obtained from CSA of the CT angiography had the least difference and the narrowest limit of agreement with the ECHO-measured aortic valve annulus diameter (Fig. 2).

Conclusion: Echo and CT measurements of aortic annulus were close but not identical, possibly due to the complex 3-dimensional structure and elliptical shape of the aortic annulus. Our findings on echo measurements provided good results compared to the mean diameter obtained by CT angiography.

Where are Automated External Defibrillators located in the community areas in Bahrain? And are there any barriers to purchasing AEDs?

O.H. Merrigan

Introduction: Currently to date no study has explored whether Automated External Defibrillators (AED) are readily available in the community setting in Bahrain. Deaths in the pre-hospital setting are high in Bahrain, due to an increase in Heart disease & diabetes in the Gulf.

Objectives: The aim of the study was to find out where are AEDs located in the community areas of Bahrain & to assess the knowledge in these community areas on AEDs.

Methods: A phone survey was conducted of 84 locations in Bahrain. The questionnaire assessed primarily if the community location had an AED and secondly assessed knowledge and awareness of AED.

Results: Indicated that only 22% ($n = 19$) of areas surveyed currently had an AED. Also 68% of locations reported that people had collapsed at these locations & 32% ($n = 27$) of the areas reported deaths at these locations. Of the 22% ($n = 19$) locations with an AED in place, four of these locations have used the AED in an emergency.

Conclusion: In conclusion the study indicated that there is an inadequate number of AEDs available in the community in Bahrain. No barriers to purchase AEDs were indicated. Public education and awareness of AEDs is fundamental to increase the number of AEDs in the community in Bahrain.

Reversal of endotheual dysfunction after AF cardioversion

Ragab Allam, Wagdy Galal, Hayam El-Damnhoury, Ayman Mortada

Background: Flow abnormalities which occur in AF patient due to irregular heart rate which resultant turbulent flow both in left atrium and systemically may lead to endothelial dysfunction.

Aim of the work: To detect endothelial dysfunction in non rheumatic AF patient. And test the hypothesis that endothelial dysfunction is reversible upon restoration of normal sinus rhythm and correction of the blood flow dynamics.

Method: Endothelium-dependent (flow-mediated dilation) vasodilator function of brachial artery was measured using high resolution ultrasound in 30 patients with persistent non rheumatic AF who were scheduled for elective electrical cardioversion and in 10 control subjects. In patients who remained in sinus rhythm after cardioversion, these measurements were repeated after one month and two months. Compared with control subjects, patients showed lower FMD during AF ($6.66 \pm 1.62\%$ vs $14.29 \pm 2.93\%$, $p < 0.001$). In patients who remained in sinus rhythm, FMD increased at both one month ($6.66 \pm 1.62\%$ vs $10.71 \pm 2.81\%$, $p < 0.001$) and two months ($6.66 \pm 1.62\%$ vs $14.28 \pm 3.48\%$, $p < 0.001$).

Conclusion: There is endothelial dysfunction associated with non-rheumatic persistent AF patients which is reversible upon restoration of normal sinus rhythm and correction of blood flow dynamics.

Risk factors for cardiovascular diseases: Kuwait Heart Foundation's mobile screening

Rashed Alowaish, Tayseer Al Asi, Laila Adly

Screening through a fully equipped unit of Kuwait Heart Foundation (KHF) was initiated to promote awareness of known risk factors of cardiovascular diseases (CVD) among the population between the periods of ''November 2010–May 2011''. There were 5027 participants (35.5% were Kuwaitis).

A specially designed questionnaire was prepared to gather information about socio-demographic characteristics, behavioral factors, metabolic measurements and risk factors. Male:Female ratio was 2.4:1. Most of the subjects (51%) belonged to the age group (35–50) years. Based on BMI, males were found to be more overweight than females (35%) – BMI 25–29.99 kg/m^2 and (12%) of males were obese with BMI $\geqslant$30 kg/m^2 compared to females as (13.5%) of them were overweight and (8.9%) were obese.

Among the screened subjects, (21.1%) were smokers and most of them were males (19.7%), (19.5%) were diabetic, (3.7%) of participants had personal history of CVD. Overall, (21.3%) of participants had high blood pressure. Approximately, (19.5%) had high glucose ($\geqslant$7.2 mmol/L) and (7.0%) had high cholesterol level ($\geqslant$6.5 mmol/L). High cholesterol level were more prevalent in males than females.

The results revealed that the volunteers for the mobile unit screening program had overall high levels of obesity and cholesterol, especially among the males who belonged to a relatively younger age groups. Mobile screening unit could be considered as an indicator for