70. Epicardial fat quality effect on subclinical atherosclerosis

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Epicardial fat quality measured as Hounsfield Unit (HU) by computed tomography has significant impact on atherosclerosis. Excessive epicardial adipose tissue (EAT) is considered a risk factor for coronary artery disease (CAD). There are limited data, however, about the quality of epicardial fat as a CAD risk factor. We investigated the relation between EAT volume and quality and subclinical CAD defined by positive coronary artery calcification (CAC) using computed tomography (CT). We reviewed 609 CT scans to assess the EAT volume, which was measured by manually tracing the parietal pericardial sac on axial images. Fat density was recorded in mean Hounsfield units (HU). Coronary calcium scores were measured using the Agatston method. The patients’ mean age was 50 ± 11 years, and 398 (65.4%) were men. The mean EAT volume was 65 ± 27 cm³, and it had a density of 87.0 ± 3.4 HU. Calcium was present in 135 (22%) of the patients: 97 (16% of the total) were men and 38 (6%) were women. There was no difference between the sexes in regard to EAT volume (66 ± 27 vs. 63 ± 26, p = 0.34) or density (87.4 ± 3.2 vs. 87.0 ± 3.6, p = 0.28). Obese patients (body mass index ≥ 30 kg/m²) had significantly higher EAT volumes than non-obese patients (73 ± 30 vs. 61 ± 29, p = 0.011), but no difference was seen in CAC (33 ± 97 vs. 27 ± 103, p = 0.34) or fat density (87.7 ± 4.0 vs. 88.0 ± 2.7, p = 0.48). Univariate regression analyses showed that higher fat attenuation (HU) was associated with a lower coronary atherosclerosis hazard ratio (HR) (0.871, 95% confidence interval [CI] 0.790–0.948, p < 0.0001), and an increased EAT volume was associated with more CAC (HR 1.16, 95% CI 1.078–1.245, p = 0.0001). The quality of EAT, measured as HU on CT, is a strong predictor of subclinical CAD as defined by coronary artery calcifications, with a higher HU associated with a lower incidence of atherosclerosis.

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71. Depression an adverse prognostic factor in geriatric cardiac inpatients

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Depression is very common among ill geriatric inpatients and could be a major factor responsible for delayed recovery, hospitalization and increased health care utilization. Study the prevalence of depression in geriatric cardiac inpatients. Determine the relationships between depression and hospitalization. A cross sectional study included 200 geriatrics (> 65 years) inpatients in cardiac wards at King Fahad Medical City from 20th of March 2015 to 29th of April 2015. We employed the modified 15 item Geriatric Depression Scale (GDS) to assess the prevalence and severity of depression. We looked at the number of admission and length of admission during the last 12 months and its relation with depression. The prevalence of depression among was 63%. 22.6% had mild depression, 35.3% had moderate depression and 4.9% had severe depression. There was a statistically significant positive correlation between number of admission/year (p value = 0.001 with r value = 0.75), and positive correlation between days of admission and the prevalence of depression (P value = 0.001 with r value = 0.45) among geriatrics. Patients who admitted to the cardiac care unit (CCU) were more likely to have depression than those who were admitted to other cardiac units, Chi-Square test, (p value = 0.001 with df = 3). Depression was prevalent among hospitalized geriatric cardiac patients. It was associated with more frequent admissions and increased length of stays and hence increased utilization of health resources.

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Well conducted randomized controlled trials (RCT) provide answers to relevant clinical question with the highest level of evidence. However, cardiologist’s participation in RCTs remains disappointing low in Saudi Arabia despite the perception of its benefits for patients and clinical practice. The purpose of this study is to identify the challenges and barriers for cardiologists participation in RCTs as perceived by cardiologist’s working in King Abdul-Aziz Cardiac center, Saudi Arabia. A self-administered questionnaire was completed by cardiologists from different subspecialties working at King Abdul-Aziz Cardiac Center, Riyadh. All cardiologists working in this center were invited to participate. The questionnaire used was validated before in a previous multicenter study conducted in the United States. A total of 61 cardiologists (consultants, Associates and Assistant consultants) participated in the study with a response rate of 91%. The mean duration of clinical practice was 7.5 ± 7.9 years. Half of the cardiologists reported that they did not participate in any RCT before. Among those who participated, only 21.3% were principal investigator (PI) or co-investigator, while others only assisted in enrolling patients. Most cardiologists (90%) agreed that RCTs improve patient care and an overwhelming majority (98.4%) reported that they would like to be involved in RCTs in the future (86.9% as PI). In addition, 77.0% of the participating physicians believe that their organization is encouraging them to participate in RCTs. However, many cardiologists cited barriers to participating in RCT including lack of time (70.5%), lack of training/experience (74.5%) and lack of ancillary support staff (70.5%). This study identified a group of barriers that should be tackled in order to promote the active involvement of cardiologists in future RCTs. Most cardiologist are very enthusiastic about RCT, but they lack the skills and support staff to initiate RCTs. Future efforts should tackle these identified barriers to increase participation in multicenter and investigator initiated clinical trials.

74. Cardiovascular risk assessment for Saudi university employees and their families: Developing a framework for provision of an evidence-based cardiovascular disease preventative programme

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In the Kingdom of Saudi Arabia (KSA), cardiovascular diseases (CVDs) are the primary cause of death among adults, representing 46% of total mortality in 2014. This study’s objectives were to assess the prevalence of cardiovascular risk factors (CVRFs), and calculate the cardiovascular risk (CVR) among King Saud University