Abstracts

the AoV calcification in patients with severe AS on echocardiography.

Methods Data was prospectively collected on all patients undergoing CT for consideration of transcatheter aortic valve implantation (TAVI) from July 2019 - January 2020. CT was performed on multidetector scanners, (Siemens SOMATOM AS+ and Canon Aquilion ONE) and measurements of AoV calcification and AoV area were performed using validated software (TeraRecon, California). Severe AS was defined as an aortic valve area of <1 cm² on echocardiography. Pearson correlation analysis was performed using R v3.3.3.

Results The cohort consisted of 81 patients, 18 of whom had contemporaneous echocardiography was available. There were a range of AoV calcium scores from 373–5478, with a mean score of 2,832 arbitrary units. There was a very weak negative correlation between the AoV area and the AoV calcification r=-.06, p=0.42 (Pearson’s). This relationship was not statistically significant.

Conclusion In patients with severe aortic stenosis on echocardiography, there is no correlation between AoV calcification and AoV area. It is important to understand the relationship between AoV calcification and AoV area before its use in clinical practice can be advocated.

P11 CORONARY ARTERY DISEASE PREVALENCE BY COMPUTED TOMOGRAPHY CORONARY ANGIOGRAPHY IN PATIENTS WITH FAMILIAL HYPERCHOLESTEROLAEMIA

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Introduction Early studies of patients with familial hypercholesterolemia (FH) reported mostly on high prevalence and incidence of clinical coronary artery disease (CAD) events. Little data exists on the prevalence of subclinical CAD in the computed tomography coronary angiography (CTCA) era.

Methods As part of a wider quality improvement project on appropriateness of CTCA at a tertiary centre in London, we documented core demographics, symptoms, CTCA findings and outcomes in patients with FH undergoing CTCA between 2015–2019. All patients underwent CT calcium scoring (Agatston) and CTCA. CAD presence was defined as having at least mild plaques (>25% stenosis).

Results We identified 42 patients with FH and a CTCA (22 men; mean age 49.5 ± 10.6 years). Of these, 23 (54.8%) were mutation positive and 24 (57.1%) were asymptomatic. Additional cardiac risk factors included hypertension (n=5; 11.9%), type 2 diabetes mellitus (n=2; 4.76%), current cigarette smokers (n=8; 19.0%) and a family history of CAD (n=36; 85.7%). Mean LDL was 4.13 mmol/L ± 1.70 mmol/L with mean BMI of 26.4 kg/m².

The average Agatston calcium score was 112, equating to a mean age/sex adjusted percentile of 44.7%. CAD was identified in 22 (52.4%) patients, and the majority had plaque in the LAD (LMS = 4; LCx = 7; LAD = 19 and RCA = 13). Among a highly selected population with FH, we confirm a high prevalence of CAD identified by CTCA. Larger studies are needed to confirm true prevalence in an