Abstracts

Abstract 25 Figure 1 Number of patients (%) with sRV impairment who had ACP or palliative care input according to NYHA class

Conclusions In our cohort of patients with sRV, the majority of patients are NYHA class I and II with mild or moderately impaired sRV function. ACP occurred in 60% of patients with NYHA III symptoms. The timing of ACP or palliative care referral can be challenging due to the subjective under reporting of symptoms and risk of sudden death in this group. ACP discussions in the outpatient setting occurred irrespective of NYHA class severity and were mostly patient initiated. Early discussion is advocated in light of recent guidance³ recommending staged ACP to those who express an interest, or concurrently with planning interventions such as device implantation, heart transplant assessment, catheter interventions or cardiac surgery.

Conflict of Interest None

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THE PROGNOSTIC ROLE OF EPICARDIAL ADIPOSE TISSUE IN AORTIC STENOSIS: INSIGHTS FROM A CARDIOVASCULAR MAGNETIC RESONANCE STUDY

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Introduction Epicardial adipose tissue (EAT) is a biologically active type of visceral fat between the pericardium and the myocardium. It is thought to have both cardioprotective and harmful functions but what mechanisms regulate this balance remain unclear. Limited literature exists on its prognostic role in aortic stenosis (AS). We investigated the association of EAT and survival in patients with AS.

Methods Consecutive patients (n=119, age 75.7±10.1 years, 70.6% male) with AS who underwent late-gadolinium contrast

enhanced cardiovascular magnetic resonance (LGE-CMR) on an 1.5T Siemens were identified retrospectively. EAT was quantified on CMR and indexed to myocardial mass (Circle CVI, Calgary, Canada) (**figure 1**). Survival status was acquired from the Office of National Statistics. Univariate and multivariate linear regression analyses identified predictors of EAT and mortality.

Results Over a mean follow up of 4.2 ± 2.4 years, 61 (51%) patients died. On univariate analysis, age (HR 1.050, 95% CI 1.018-1.082, p=0.002), NYHA class (HR 1.421, 95% CI 1.004-2.012, p=0.048), indexed left ventricular end-diastolic volume (LVEDV) (HR 1.009, 95% CI 1.001-1.017, p=0.025), indexed left ventricular end-systolic volume (LVESV) (HR 1.010, 95% CI 1.002-1.018, p=0.014), LnNT-proBNP (HR 1.265, 95% CI 1.035-1.547, p=0.022), high sensitivity troponin I (HR 1.000, 95% CI 1.000-1.000, p=0.001), osteopontin (HR 1.002, 95% CI 1.001-1.003, p=0.001), osteoprotegerin (HR 1.143, 95% CI 1.052-1.242, p=0.002), ST2 (HR 1.013, 95% CI 1.006-1.021, p=0.001) and albumin (HR 0.931, 95% CI 0.887-0.977, p=0.004) were all associated with increased mortality. EAT volume indexed to myocardial mass was not

Abstract 26 Figure 1 Quantification of epicardial adipose tissue (EAT) using cardiovascular magnetic resonance (CMR) imaging in the SAX view with the heart in diastole. Following tracing in each SAX view a 3D model of EAT was created

Abstract 26 Table 1 Forwardstepwise multivariate linear regression analysis

	HR	95% CI	p-value
hsTnI (ng/L)	1.001	1.000-1.001	0.166
ST2 (ng/mL)	1.020	1.003-1.037	0.022
LnNT-proBNP	1.285	1.036-1.594	0.022
Any intervention (TAVI or AVR)	0.308	0.159-0.597	<0.001

Table 1 shows that in multivariate analysis, any intervention (TAVI or AVR) remained the only significant predictor of increased survival. ST2 and LnNT-proBNP remained the only significant predictors of poor mortality. HR:hazard ratio; CI: confidence interval; hsTnI: high-sensitivity troponin I; ST2: suppression of tumorigenicity 2; NT-proBNP: N-terminal pro-hormone of brain natriuretic peptide; TAVI: transcatheter aortic valve intervention; AVR: aortic valve replacement.

associated with mortality (HR 0.646, 95% CI 0.135-3.097, $p=0.585$). On stepwise forward regression analysis, only undergoing any intervention (TAVI or AVR) remained a significant predictor of increased survival (HR 0.308, 95% CI 0.159-0.597, $p<0.001$) (table 1). ST2 (HR 1.020, 95% CI 1.003-1.037, $p=0.022$) and LnNT-proBNP (HR 1.285, 95% CI 1.036-1.594, $p=0.022$) were the only significant predictors for poor mortality (table 1).

Discussion Higher volume of EAT indexed to myocardial mass was not associated with mortality in patients with AS. The variables that did remain significant after adjustment were ST2, NT-proBNP and undergoing intervention.

Conclusions Higher EAT volume indexed to myocardial mass was not significantly associated with mortality after adjusting for other variables in patients with AS.

Conflict of Interest None

27 INHERITED CARDIOMYOPATHY CONDITIONS CLINIC IN DISTRICT GENERAL HOSPITAL IMPROVES ESC GUIDELINES IMPLEMENTATION AND MANAGEMENT OF PATIENTS WITH HYPERTROPHIC CARDIOMYOPATHY

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Background Hypertrophic cardiomyopathy (HCM) is the most common inherited cardiomyopathy and is frequently encountered in clinic. In many district general hospitals (DGH), the condition is frequently managed in general cardiology clinics with a small proportion referred to dedicated Inherited Cardiomyopathy Conditions (ICC) clinic in tertiary centres for complex treatments. We hypothesised that management of HCM patients would be improved by introduction of a dedicated ICC clinic at our district general hospital.

Purpose The purpose of the study was to evaluate the impact on patient management in a dedicated ICC clinic at our district general hospital. The outcome was determined by assessing adherence to the European Society of Cardiology (ESC) HCM guidelines before and after introduction of this clinic, hospital admission and mortality.

Methods We retrospectively reviewed the clinic records of patients with a diagnosis of HCM seen in the general cardiology clinic. A dedicated ICC clinic was established and the patient records of those with HCM assessed in the ICC clinic over a 6-month period were also reviewed. Patient assessment and management were evaluated against ESC recommendations, including clinical risk stratification (symptoms review, ambulatory blood pressure monitoring, 48-hour Holter monitoring, sudden cardiac death (SCD) risk assessment); imaging assessment by echocardiography and cardiac magnetic resonance (CMR); and patient counselling (exercise, genetic, and family counselling). Patient outcomes at 2-years were evaluated, including hospital admissions from cardiac causes (arrhythmia, stroke, chest pain, heart failure); new onset heart failure; SCD and all-cause mortality.

Results Demographics were similar for HCM patients assessed in the ICC clinic ($n=62$, mean age 61 ± 13), and general cardiology clinic prior to the introduction of ICC clinic ($n=24$, mean age 61 ± 17). There were significant improvements in risk stratification by clinical assessment of symptoms, holter monitoring, as well as formal SCD risk evaluation (table 1).

Abstract 27 Table 1 Demographics and clinical risk stratification of HCM patients assessed in local Inherited Cardiomyopathy Conditions clinic compared to general cardiology clinic

	ICC clinic (n=62)	General cardiology clinic (n=24)	P-value
Age	61±13	61±17	0.43
Male gender	39 (62%)	18 (75%)	0.15
clinical risk stratification			
Symptoms review	62 (100%)	15 (62.5%)	<0.001
Ambulatory BP monitoring performed	13 (21%)	2 (8.3%)	0.17
48-hr holter performed	60 (96.8%)	7 (29.2%)	<0.001
Exercise tolerance test performed	31 (50%)	7 (29.2%)	0.08
SCD-risk score evaluated	31 (50%)	1 (4.2%)	<0.001

Abstract 27 Table 2 Imaging, patient management and 2-year clinical outcome of HCM patients assessed in local Inherited Cardiomyopathy Conditions clinic compared to general cardiology clinic

	ICC clinic (n=62)	General cardiology clinic (n=24)	P-value
Imaging and patient management			
LVOT gradient measured	59 (95.2%)	19 (79.2%)	0.02
CMR imaging	46 (74.2%)	12 (50%)	0.03
Family counselling (female, aged <52)	1 (N=7) (14.3%)	0 (N=1) (0%)	0.69
Genetic counselling	13 (21%)	2 (8.3%)	0.17
Clinical outcomes at 2-year follow up			
Cardiac care admissions	1 (1.6%)	3 (12.5%)	0.03
New onset heart failure	7 (11.3%)	6 (25%)	0.11
All-cause mortality	1 (1.6%)	1 (4.16%)	0.48

There was better compliance with ESC recommendations in imaging assessments; more patients underwent CMR and left ventricular outflow tract (LVOT) assessment in echocardiography in the ICC clinic cohort (table 2). None of the patients in either cohort met the clinical endpoint of SCD. Hospital admission from cardiac causes at 2-years was significantly lower in the patients assessed in ICC clinics (table 2).

Conclusion In this HCM cohort, introduction of a local ICC clinic led to improved patient care through better adherence to ESC HCM guidelines in particular with respect to clinical assessment, imaging and risk stratification as well as reduced hospitalisations from cardiac causes.

Conflict of Interest None

28 AUTOMATIC AORTIC ANNULUS SIZING BY THE HEART NAVIGATOR III SOFTWARE IN THE PLANNING OF TRANSCATHETER AORTIC VALVE IMPLANTATION (TAVI)

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