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
linical 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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Abstract 28 Table 1 Edwards Sapien, Abbott Portico, Medtronic Evolut and NVT Allegra valve size choices using heart navigator III vs CT human-operator

	Valve Size Chosen (%)				
	-1	Same	+1	+2	+3
Edwards Sapien	16.3	71.3	11.9	0.6	-
Abbott Portico	20.0	60.6	18.8	-	0.6
Medtronic Evolut	15.6	71.3	12.5	2.3	0.6
NVT Allegra	16.9	68.8	13.8	0.6	-

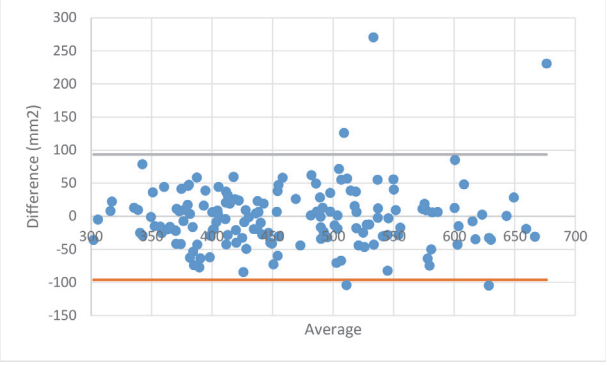
Background Transcatheter aortic valve implantation (TAVI) requires assessment of gated CT images for accurate aortic annulus sizing. We investigated the accuracy of The Heart Navigator III software (Philips Healthcare, Netherlands) in performing fully automatic annulus measurements.

Methods One-hundred and sixty patients underwent gated cardiac CT scans as pre-assessment for a TAVI procedure. The Heart Navigator III software (Philips Healthcare, Netherlands) performed automatic segmentation of the aortic root and measurement of the aortic annulus area in systole without operator intervention. These were compared with manual measurements made by an experienced CT operator during pre-procedural planning with commercially available CT software. We then evaluated whether the automated measurements would lead to the same valve size selected as the human-operator utilising commonly used TAVI manufacturers.

Results When Heart Navigator III automatic measurements of the aortic annulus size were compared to CT human-operator images, there was a bias of -1.48mm^2. 95% limits of agreement were from -96.16 to +93.21 mm^2 (see **figure 1**). Automatic measurements and CT human-operator measurements led to the same size Edwards Sapien valve in 71.3% of patients, Abbott Portico valve in 60.6% of patients, Medtronic Evolut in 71.3% of patients and NVT Allegra in 68.8% of patients. The Heart Navigator III selected valves within 1 size of the human-operator choice in 97.1 – 99.4% of cases **(table 1)**.

Conclusion The Heart Navigator III software (Philips Healthcare, Netherlands) is a promising technology allowing fully automated aortic annulus segmentation and sizing. However, at present the accuracy is not sufficient for clinical use and human-operator oversight is still required.

Conflict of Interest None



Abstract 28 Figure 1 Bland-Altman analysis demonstrating the difference between the heart navigator III measurements and CT operator measurements

29 GONE BUT NOT FORGOTTEN: A CONTEMPORARY IMAGING SERIES OF PATIENTS WITH A SYSTEMIC RIGHT VENTRICLE AND A LV-PA CONDUIT FOR NATIVE OBSTRUCTION OF THE LEFT VENTRICULAR OUTFLOW TRACT.

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Background In the UK, left ventricle to pulmonary artery (LV-PA) conduit implantation was utilised in two centres in the late 1980s to 1990s in very small numbers. The LV-PA conduit bypassed native LV-PA outflow tract obstruction in patients with transposition of the great arteries (D-TGA) with an atrial-switch and congenitally corrected transposition of the great arteries (CCTGA, L-TGA). It is now generally appreciated that LV-PA obstruction offers some physiological advantage for patients with an atrial-switch or CCTGA to 'preserve' interventricular septal conformation and to help lessen progressive systemic tricuspid valve regurgitation – akin to 'physiological' repair with PA banding. The practice of LV-PA conduit implantation has essentially become extinct from clinical practice.

Case Presentations We report of 5 patients with native LV-PA obstruction that all underwent additional extra-cardiac LV-PA conduit implantation without resection of their native LV-PA obstruction. The operations were performed at the same surgical centre between 1989 and 1995 (n=3 CCTGA, n= 2 D-TGA with atrial-switch). During adulthood follow-up, imaging of the LV-PA conduit was missed or deemed non-diagnostic by echocardiography. Subsequent cross-sectional imaging found all conduits to be small in calibre with an unusual anterior course. Patient 1 & 2 remained stable with preserved ventricular function, low sub-pulmonic left ventricular pressures and only mild gradients demonstrated through their LV-PA outflows. Patients 3, 4 & 5 had preserved ventricular function in the context of severe native and extra-cardiac LV-PA conduit obstruction, with significant circumferential conduit calcification and adhesion to the retro-sternum. Patient 3 underwent conduit excision and replacement after presenting with Staph Capitus endocarditis, which was confirmed with PET-CT,