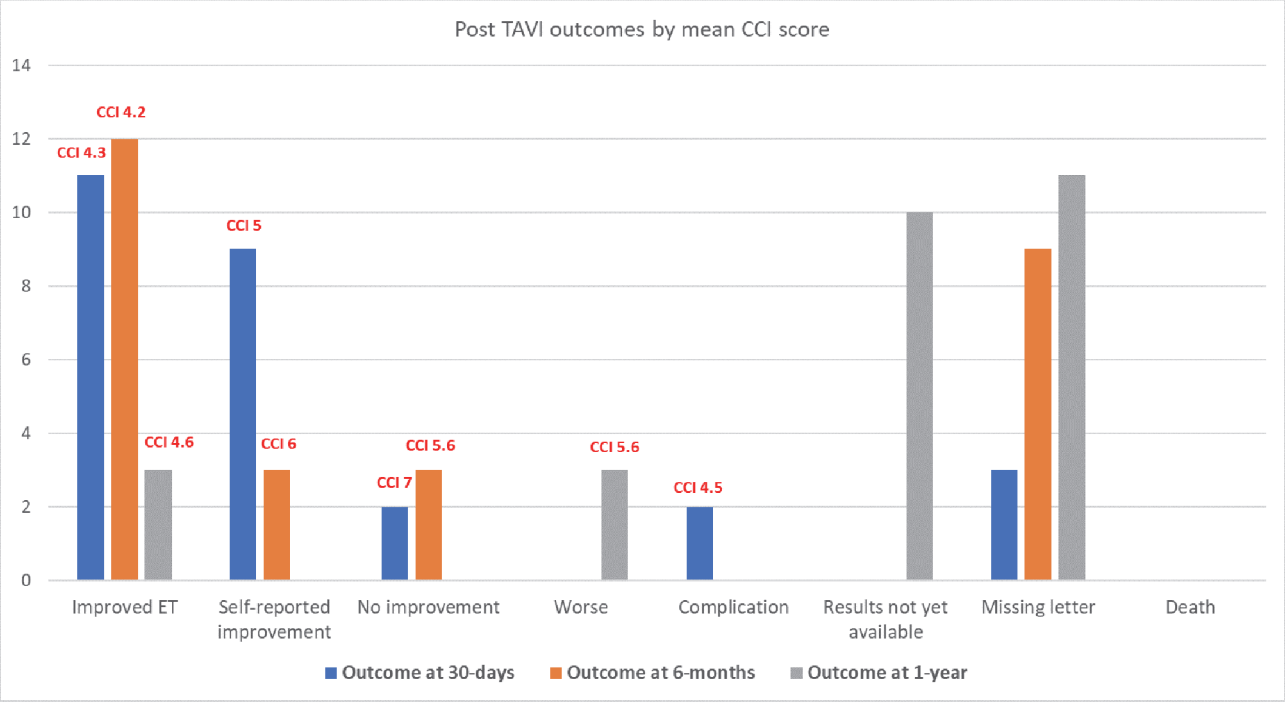

Abstract 30 Figure 2 Post TAVI outcomes by mean CCI score

Results Thirty-eight (38) patients were referred for consideration of TAVI with mean age 77.9 and mean CCI score 4.5. Twenty-seven patients (71%) underwent TAVI with a mean age of 77.5 years and a mean CCI score of 5.2. The commonest comorbidities were previous myocardial infarction (47%), congestive heart failure (21%) and COPD (34%).

At 30-days, 41% of patients (mean CCI 4.3) had objective improvement in exercise tolerance, 33% (mean CCI 5) reported subjective improvement and 7% (mean CCI 7) experienced no change in symptoms. Complications occurred in 2 patients with mean CCI 4.5. The benefit persisted in 15 out of 18 patients at 6 months. At 1-year, 3 out of 6 reported sustained benefit (mean CCI = 4.6) and 3 reported worsening symptoms (mean CCI = 5.6) due to progression of mitral valve disease (1), new diagnosis of possible cancer (1) and worsening ankle swelling/poor mobility (1). Frailty screening was not routinely done.

Conclusion The CCI tool is reliable in predicting outcomes for patients undergoing TAVI. It can be quickly performed using a web-based calculator in a cardiology out-patient clinic at time of assessment. We observed good 30-day outcomes with CCI scores 4–5 but this benefit seemed to lessen at 6-months and 1-year when CCI score >5.6. CCI score did not predict complications. Our results reflect the European Society of Cardiology (ESC) guidance with CCI score >5 conferring poorer prognosis. Futility of TAVI was predicted by CCI score >7 in our group. We recommend using the CCI score in the cardiology clinic to measure comorbid burden that may impact on recovery. Frailty status plays an important role in TAVI considerations. Incorporating frailty screening in adults suspected of living with frailty can be achieved in clinic using the widely validated Rockwood Clinical Frailty scale (CFS). This web-based tool is also available as a phone app. Mild-moderate frailty denoted by CFS 5/6 can be used to triage patients who may benefit from more comprehensive elderly care assessment. Intervention in severe frailty CFS >7 would likely confer more risk than benefit. These rapid web-based tools can help identify patients with potential barriers to recovery and rehab following TAVI.

Conflict of Interest None

31 SMASHING IT ON THE ICE RINK: AN UNUSUAL CASE OF PROSTHETIC VALVULAR DAMAGE

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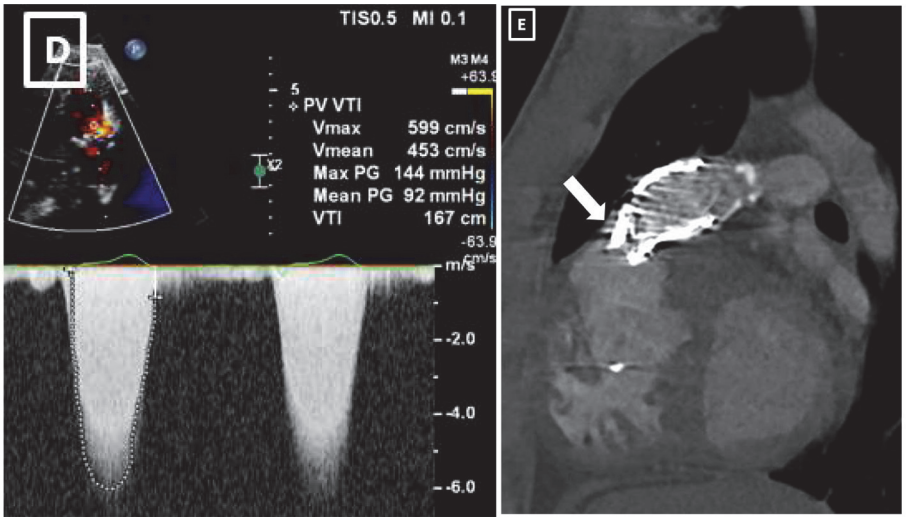
We would like to present the following clinic case, as it highlights

the importance of taking good clinical history an arranging appropriate investigations in patients with adult congenital heart disease. As well as considering as demonstrating the use of multi modality imaging in these patients to allow diagnostic certainty.

A 19-year-old gentleman with a history of repaired pulmonary atresia with a ventricular septal defect (VSD) presented to the accident and emergency department with breathlessness. He had a Blalock-Taussig shunt in infancy followed by a right ventricle-to-pulmonary artery (RV-PA) conduit and VSD repair. A further RA-PA conduit replacement followed in 2013 due to conduit stenosis. His third procedure was a percutaneous valve-in-valve (V-i-V) Melody pulmonary valve implantation 18 months prior to presentation which was technically successful. Prior to presentation he was unlimited compared to peers.

He presented following a significant blow to his chest whilst playing ice hockey 24 hours prior, with chest pains and dyspnoea, without presyncope or syncope. On assessment thereafter in the accident and emergency department he was haemodynamically stable, with a grade 3–4 systolic murmur



Abstract 31 Figure 1 D: TTE showing critical V-i-V stenosis. E: CTPA showing marked new proximal flattening of the proximal RV-PA conduit stent causing significant stenosis

heard. Admission baseline chest X-ray, blood tests and ECG were unremarkable.

An urgent transthoracic echocardiogram (TTE) showed significant increments in the tricuspid valve regurgitant velocity to 4.6 m/s compared to his previous study. There was an abnormal melody valve contour and substantial turbulence on colour Doppler, with a Vmax of 6 m/sec (mean gradient 92 mmHg) across the

percutaneous valve (Picture D). A subsequent computed tomography pulmonary angiogram revealed marked flattening of the proximal RV-PA conduit causing significant stenosis (Picture E,).

It was felt that the patient had become symptomatic from significant conduit stenosis, likely secondary to the injury sustained from full body blunt force trauma. The gradients appreciated were an indication for cardiac surgery.

The patient subsequently underwent an urgent third sternotomy for RV-PA conduit replacement with a 7 mm Magna-Ease valve in a 30 mm Gelweave graft. He had an uneventful post-operative recovery with a short intensive care stay.

Post-operative TTE demonstrated a well-functioning conduit with good biventricular function. He was advised to cease playing ice hockey, and avoid high contact sports.

This case highlights an unusual cause of acute, critical pulmonary valve stenosis, most likely secondary to blunt force trauma to the chest.

Conflict of Interest none

32 COMPARISONS OF ACCELEROMETER-ASSESSED PHYSICAL ACTIVITY, INACTIVITY AND SLEEP IN INDIVIDUALS WITH HYPERTROPHIC CARDIOMYOPATHY VERSUS INDIVIDUALS WITH HEART FAILURE

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Introduction Engagement in regular physical activity reduces symptom burden and improves quality of life in individuals with hypertrophic cardiomyopathy (HCM) and those living with heart failure (HF). This study evaluated the physical activity, inactivity and sleep of individuals living with HCM versus individuals living with HF.

Methods Twenty-one individuals with HCM (52±15 years old, body mass index (BMI) 29 (26–31) kg/m2) and eighteen individuals with stable chronic HF with reduced ejection fraction (68±7 years old, BMI: 27 (25–31) kg/m2, left ventricular ejection fraction: 35 (30–35) %) completed 7-day monitoring using wrist-worn triaxial accelerometers (GENEActiv, ActivInsights Ltd, UK). Results described as median (interquartile range).

Results After controlling for age, time spent in 1–5 minute bouts of light intensity physical activity were greater in individuals with HCM versus individuals with HF (45 (24–55) vs. 37 (25–46 minutes/day, p=0.02). Steps/day were similar for individuals with HCM versus HF (9762 (7755–12496 vs. 8138 (7174–11257) steps/day, p=0.72). There were no other significant differences in physical activity, inactivity or sleep variables between the two groups. Age was significantly negatively correlated with time spent in 10-minute bouts of moderate-vigorous physical activity (r=-0.61, p<0.01) but positively correlated with time spent in 10-minute bouts of light physical activity (r=0.44, p<0.05) in individuals with HCM only. Peak oxygen consumption was positively correlated with moderate-vigorous physical activity for both individuals with HCM (r=0.56, p<0.05) and HF (r=0.52, p<0.05).

Conclusions Individuals with HCM spend greater periods in light bouts of physical activity compared to individuals with HF but no differences were found for the other accelerometery parameters. Advanced ageing has a stronger negative effect on time spent in moderate-vigorous physical activity in individuals with HCM. Individuals in both groups should be encouraged to participate in bouts of both light and moderate-vigorous physical activity to benefit health.

Conflict of Interest N/A