hypertension.(2-3) However, the clinical significance of preoperative PA/Ao in right ventricular failure (RVF) after durable left ventricular assist device (LVAD) implantation has not been examined. We sought to investigate the prognostic impact of preoperative PA/Ao diameter ratio in durable LVAD patients with severe postoperative RVF.

Methods: (Following IRB approval,) we performed a single center retrospective study of patients receiving a durable LVAD between March 2013 and July 2019. RVF was categorized by non-severe and severe based on the INTERMACS criteria. The cohort were divided into severe RVF vs non-severe RVF. The aim of the study was to analyze the effect of preoperative PA/Ao diameter ratio to postoperative RVF. Also, receiver operating characteristics curve (ROC) and logistic regression model were utilized to sub-analyze the prediction quality and cut-off value of PA/Ao to severe RVF.

Results: Among total of 219 cohort, 43 were excluded for unavailable hemodynamic data or CT scan, the remaining 176 were included and analyzed. Among 176 cohort, 44 (25.0%) developed severe RVF. Preoperative patient demographics, hemodynamics and CT findings are shown in Table 1. Severe RVF group had statistically larger preoperative PA diameter (P=0.05), smaller Ao diameter (P=0.02), and larger PA/Ao (P<0.01) compared to non-severe RVF group. Preoperative PVR, TPG, DPG were similar between 2 groups. ROC curve testing PA/Ao ratio's diagnostic ability to predict severe RVF, with an area under the curve result of 0.787. (Figure 1), Logistic regression curve predicted probability gives a cutoff point of 1.09. (Figure 2)

Discussion: Our study showed PA/Ao diameter ratio is an easy noninvasive indicator with satisfactory diagnostic ability to predict postoperative severe RVF with cutoff value of 1.09. This non-invasive assessment could be more utilized in clinical decision making such as patient selection, preoperative optimization and timing of surgery to avoid postoperative severe RVF. A larger data set should focus on mortality effect and examine in more depth the relationship between PA/Ao ratio and PVR.

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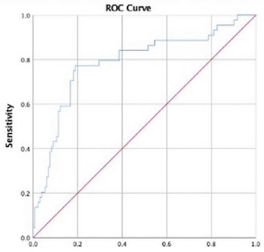
Table 1. Severe RVF vs Non-Severe RVF

	n (total)	Non-Severe RVF n = 132	Severe RVF n= 44	p-value
Age	176	57.1 ± 11.8	56.2 ± 11.3	0.591
BSA	176	2.06 ± 0.26	2.35 ± 3.26	0.060
BMI	176	28.74 ± 14.77	28.11 ± 5.43	0.500
Male gender	176	111 (84.1%)	41 (93.2%)	0.128
CT Scan				
PA (mm)	176	28.88 ± 4.46	30.34 ± 5.38	**0.050**
Aorta (mm)	176	31.53 ± 4.62	29.47 ± 5.63	**0.020**
PA to Ao ratio	176	0.92 ± 0.11	1.04 ± 0.12	**< 0.001**
PVR	176	3.84 ± 1.86	3.71 ± 1.85	0.710
TPG	176	14.22 ± 5.20	14.77 ± 8.49	0.391
DPG	176	4.19 ± 3.91	4.68 ± 5.02	0.910

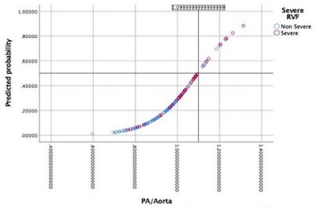
RVF: right ventricular failure, n: number, BSA: body surface area, BMI: body mass index, CT: computerized tomography, PA: pulmonary artery, Ao: aorta, mm: millimeters, PVR: pulmonary vascular resistance, TPG: trans-pulmonary gradient, DPG: diastolic pulmonary gradient

Figure 1. Area Under the Curve
Test Result Variable PA/Aorta ratio – Severe RVF: 0.787



PA: Pulmonary Artery, RVF: Right Ventricular Failure

Figure 2. Logistic Regression - PA/Ao Cutoff Value



PA: pulmonary artery, Ao: aorta, RVF: right ventricular failure

Plenary Joint Session: COVID-19 – October 27, 2021 CO:07

COVID-19 PANDEMIC EXPERIENCE IN THE UNITED KINGDOM – A NATIONAL SURVEY ABOUT CARDIAC CASES, WORK PATTERNS OF CARDIAC ANAESTHETISTS AND SUPPORT

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Introduction: The COVID-19 pandemic started in Hubei Province, China in 2019 with the first confirmed cases in the UK in January 2020. On May 21st 2020, there were 158,488 confirmed cases in England and Wales with 33,081 deaths in SARS-CoV-2 positive patients (1). From March 2020 onwards, emergency cardiac operations were prioritised and individual work patterns adjusted. The skill set of cardiac anaesthetists, often including an expertise in critical care medicine, extracorporeal membrane oxygenation and echocardiography, was useful for the multidisciplinary medical care of COVID-19 patients in critical care units. The aim of this survey was to assess individual cardiac anaesthetic experiences during the first wave of the COVID-19 pandemic in the UK.

Methods: We conducted a survey, supported by the Association for Cardiothoracic Anaesthesia and Critical Care (ACTACC). A 16-question survey related to the first UK COVID-19 surge in April and May 2020 was sent to the membership of ACTACC in 36 cardiac centres in July 2020. Data was collected and collated using the web-based survey platform "Survey Monkey" (Palo Alto, CA).

Results: There were 80 completed responses, indicating a response rate of about 20%. The majority of anaesthetists continued cardiac anaesthesia with emergency cases (53%) and urgent cases (65%) only at their centres. Every 5th cardiac anaesthetist (22%) was re-deployed to a different unit in their hospital or to a different hospital. The clinical work pattern changed at least moderately for the majority of cardiac anaesthetists (86%). The majority of anaesthetists (90%) felt appropriately supported when they stepped outside of their usual clinical role during the pandemic and 95% felt that their existing skillset was appropriately used. The workload increased in a majority of cardiac anaesthetists (53%), but it also decreased for some (35%). Non-resident on-calls increased for about 1/3 (36%) of respondents and resident on-calls increased for 50% of cardiac anaesthetists. A majority of anaesthetists (85%) wore PPE during their clinical work and 95% felt that the supply of PPE was adequate. The most useful source of information during the pandemic was peer discussion, chosen by more than half of cardiac anaesthetists (54%).

Discussion: The results of this national survey for cardiac anaesthetists during the first COVID-19 wave in the UK demonstrate that work patterns for cardiac anaesthetists changed dramatically. These changes may have an effect on psychological wellbeing of cardiac anaesthetists (2). However, the majority of anaesthetists felt well supported in their clinical work. Peer discussions scored high as useful sources of information, suggesting that professional networks are crucial to both, personal wellbeing and good patient care. One limitation of this survey is a low response rate, with potentially more extreme experiences in the non-responder group, emphasising the importance of support measures and the challenge of gauging that they are effective.

We conclude, that with subsequent COVID-19 peaks, there is a continued need to address potential effects of major changes of work patterns by cardiac anaesthetists on burnout, psychological wellbeing and resilience.

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2. Heath et al. Anaesthesia, in press

ECHO Panel Session: HOCM Testing? – October 27, 2021 CO:08

CORRELATION OF MITRAL ANNULAR PLANE SYSTOLIC EXCURSION (MAPSE) WITH LEFT VENTRICULAR GLOBAL LONGITUDINAL STRAIN (GLS) IN PATIENTS UNDERGOING CORONARY ARTERY BYPASS SURGERY

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Introduction: Introduction:Global longitudinal strain (GLS) of left ventricle (LV) has an incremental value over conventional parameters like ejection fraction for risk stratification in patients referred for cardiac surgery [1]. Mitral annular plane systolic excursion is a simple parameter obtained by M mode, is also an sensitive marker of LV function in various clinical settings [2]. It has been demonstrated that, MAPSE and GLS has similar biological variability in healthy population[3]. The aim of this study was to assess correlation of MAPSE and GLS in patients with ischemic heart disease undergoing coronary artery bypass surgery (CABG).

Methods: This was a retrospective study of 51 patients undergoing CABG. A cardiac anesthetist performed transthoracic echocardiography exam within 24 hours of surgery. GLS was measured by three apical views: 4-chamber, 2-chamber and long axis view and average value measured. Average MAPSE was obtained in apical 4-chamber view by aligning M mode cursor at lateral and septal mitral annulus and averaging the two values. Measurements of GLS and MAPSE in a sample patient are shown in figure 1. A Pearson's product-moment correlation was run to assess the relationship between MAPSE and GLS.

Results: The average age of patients was 60 years with 26% females. The average mean GLS was -12.8 -2.9% and average