events. ^{18}F -NaF PET-CT holds promise as a non-invasive marker of disease severity and future risk in patients with acute aortic syndrome.

Conflict of Interest None

162 MULTI-MODALITY IMAGING IN SURVIVORS OF COVID-19

¹Trisha Singh, ¹Shruti Joshi, ¹Nick Spath, ¹Lucy Kershaw, ¹Andy Baker, ¹Helen Jordan, ²Gaurav Gulsin, ³Michelle Williams, ³Edwin van Beek, ²Jayanth Arnold, ¹Semple Scott, ³David Newby, ¹Marc Dweck, ²Gerry McCann. ¹University of Edinburgh, Edinburgh, UK; ²University of Leicester; ³Centre for Cardiovascular Sciences, University of Edinburgh

10.1136/heartjnl-2021-BCS.159

Background Widespread abnormalities of the myocardium have been reported in patients with COVID-19. However, these patients often have substantial co-morbidities and it is essential to understand whether cardiac abnormalities represent pre-existing disease or are the consequence of COVID-19.

Objective To determine the contribution and cardiac impact of co-morbidities in patients who have recovered from COVID-19.

Methods In a prospective observational study, adult patients hospitalized with confirmed COVID-19 were recruited from the Edinburgh Heart Centre between May and November 2020 and compared to healthy and co-morbidity-matched volunteers. Patients underwent gadolinium and manganese-enhanced magnetic resonance imaging and coronary computed tomography angiography.

Results Twenty-three patients (54 ± 11 years, 20 male) who recovered from COVID-19 were recruited. Half ($n=11$, 48%) required admission to the intensive care unit and a third ($n=7$, 31%) received non-invasive or invasive ventilation. Patients had a high prevalence of known cardiovascular disease

($n=18$, 78%), associated risk factors ($n=11$, 45%) and coronary artery disease ($n=8$, 35%). Compared with younger healthy volunteers ($n=10$), myocardial native T1 values (1202 ± 25 versus 1162 ± 27 ms, $P=0.008$, **figure 1**) and extracellular volume fraction (31.9 ± 1.7 versus 29.8 ± 0.5 %, $P=0.001$, **figure 1**) were higher with no differences in manganese uptake. Compared to co-morbidity-matched volunteers ($n=20$), there were no differences in native T1 values (1202 ± 25 versus 1196 ± 39 ms, $P=0.61$, **figure 1**), extracellular volume fraction (31.9 ± 1.7 versus 31.0 ± 0.5 %, $P=0.11$), presence of late gadolinium enhancement or manganese uptake. These findings remained irrespective of COVID-19 disease severity, presence of concomitant myocardial injury or coronary artery disease.

Conclusions Patients who have recovered following hospitalization with COVID-19 have no evidence of a major excess in myocardial injury or dysfunction compared to co-morbidity-matched volunteers. The presence of co-morbidities likely explains many of the previously reported myocardial abnormalities.

Conflict of Interest None

163 FIRST IN VIVO PRETARGETED PET IMAGING OF ATHEROSCLEROSIS WITH ANTIBODIES AGAINST FORMS OF MODIFIED LIPOPROTEINS

¹Cinzia Marceddu, ¹Adam Hartley, ¹Mikhail Caga-Anan, ¹Samata Pandey, ¹Yasmin Morris, ¹Dorian Haskard, ²Jan Passchier, ^{1,2}Ramzi Khamis. ¹Imperial College London, London, UK; ²Invivo London

10.1136/heartjnl-2021-BCS.160

Atherosclerosis is a cardiovascular disease initiated by the deposition of Low Density Proteins (LDL) within the intima and

Abstract 162 Figure 1