

Supplemental Table 4. Studies assessing the value of right ventricular longitudinal strain in patients with chronic ischemic heart disease or acute coronary syndromes

First Author, Journal, Year	Study population	Sample size (n)	Design	Metrics	Results	Cut-off value
Antoni ML et al. <i>Circ Cardiovasc Imaging</i> , 2010(1)	STEMI treated with primary percutaneous coronary intervention	621	Prospective	RVFWLS	Only RV fractional area change and RVFWLS independently predicted the composite end point at 1 year. RVFWLS provided incremental value to clinical information, infarct characteristic, LV function and RV fractional area change	-22.1
Park JH et al, <i>J Cardiovasc Ultrasound</i> , 2014(2)	Chronic ischemic heart disease	72	Retrospective	RV4CLS ^a	RVFWLS showed significant correlation with RVEF obtained with CMR. Patients with RV4CLS less negative than 15.4 had worse prognosis at 1 year.	-15.4
Park SJ et al. <i>JACC Cardiovasc Imaging</i> , 2015(3)	Inferior STEMI	282	Prospective	RV4CLS ^a	RV4CLS showed a higher c-statistic value than RV fractional area change and TAPSE in addition to age, Killip class, troponin-I, LVEF and RV infarction to predict mortality and MACE at 5 years	-15.5
Chang WT et al, <i>J Am Soc Echocardiogr</i> , 2016(4)	Chronic angina and proven coronary artery disease	208	Retrospective	RVFWLS	RVFWLS was an independent prognostic factor for both cardiovascular mortality and hemodynamically unstable ventricular arrhythmia	-18
Gorter TM et al, <i>Am J Cardiol</i> , 2016(5)	STEMI treated with primary percutaneous coronary intervention	258	Prospective	RVFWLS	RV dysfunction occurs in 1/3 of STEMI patients treated with primary PCI. However, it is reversible in most patients	-20
Goedemans L et al. <i>J Am Soc Echocardiogr</i> , 2019(6)	STEMI and chronic obstructive pulmonary disease	117	Retrospective	RVFWLS	STEMI patients with relatively preserved LVEF, and COPD had significantly worse RVFWSL compared with patients without COPD. Moreover, RVFWSL > -20% was independently associated with worse survival.	-20

All the reported studies used GE Healthcare ultrasound systems and software packages except

^aSyngo Velocity Vector Imaging (Siemens Healthineer, Munich, D), ^b2D Cardiac Performance Analysis v4.5 (TomTec Imaging Systems, Unterschleissen, D)

Abbreviations: FAC, right ventricular fractional area change; HFpEF, heart failure and preserved left ventricular ejection fraction; HFrEF, heart failure and reduced left ventricular ejection fraction; LV,

left ventricle/ventricular; LVEF; left ventricular ejection fraction; MACE, major adverse cardiac events; TAPSE; tricuspid annular plane systolic excursion; all remaining abbreviations as in Table 2

References

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4. Chang WT, Liu YW, Liu PY et al. Association of Decreased Right Ventricular Strain with Worse Survival in Non-Acute Coronary Syndrome Angina. *Journal of the American Society of Echocardiography : official publication of the American Society of Echocardiography* 2016;29:350-358 e4.
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6. Goedemans L, Hoogslag GE, Abou R et al. ST-Segment Elevation Myocardial Infarction in Patients With Chronic Obstructive Pulmonary Disease: Prognostic Implications of Right Ventricular Systolic Dysfunction as Assessed with Two-Dimensional Speckle-Tracking Echocardiography. *Journal of the American Society of Echocardiography : official publication of the American Society of Echocardiography* 2019;32:1277-1285.