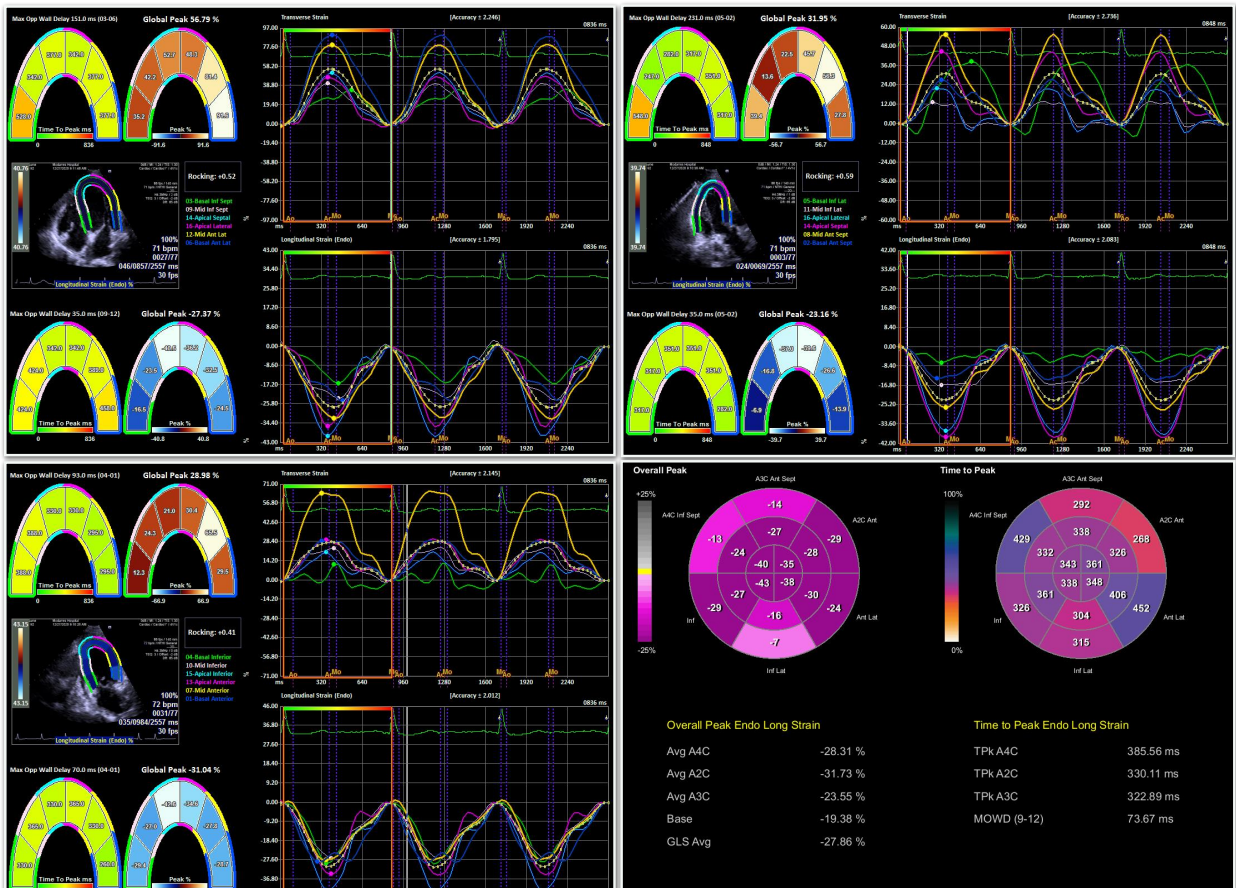
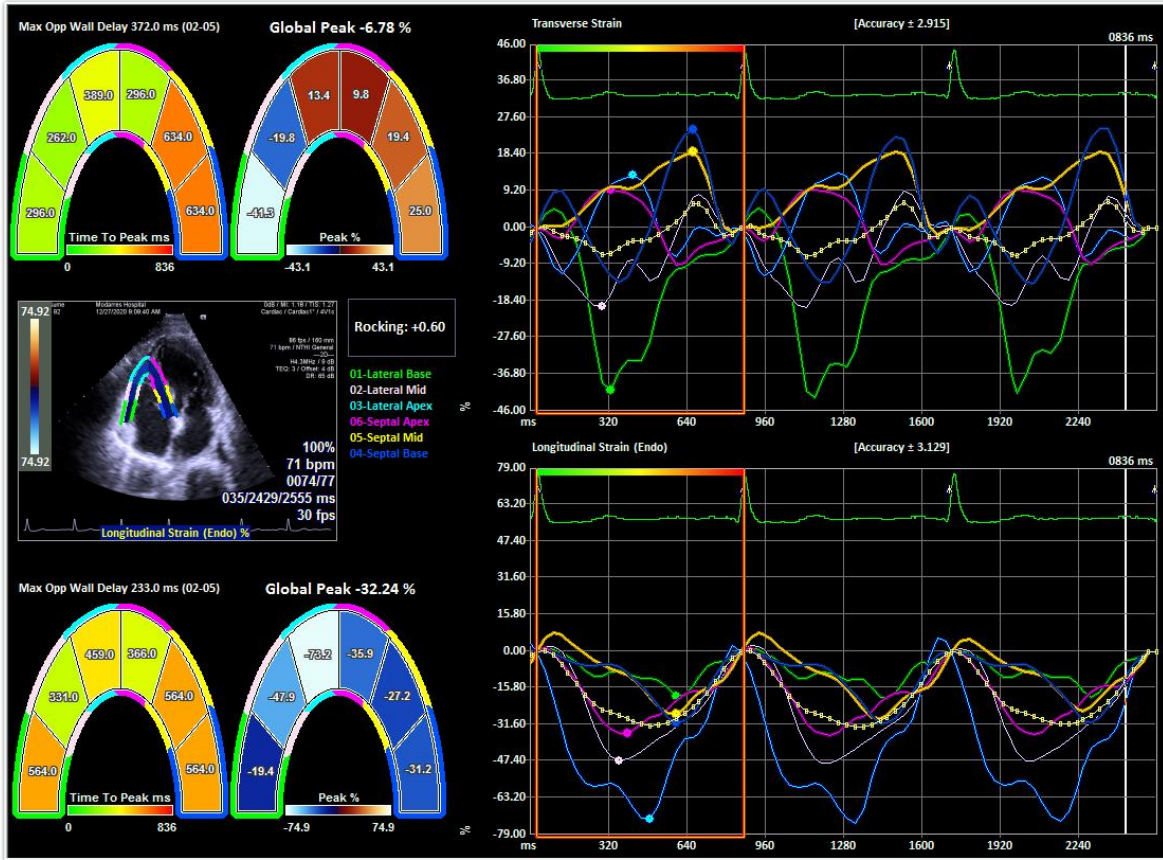


Supplementary materials:



Supplementary Figure 1. Left ventricular endocardial margin was traced manually in 3 views (4-chamber, 3-chamber and 2-chamber). Then left ventricular global longitudinal strain (LVGLS) and bull's eye were automatically calculated by the device.



**Supplementary Figure 2.** Right ventricular endocardial margin was traced manually in the 4-chamber view. Then right ventricular global longitudinal strain (RVGLS) was automatically calculated by the device.

**Supplementary Table 1- Echocardiographic measurements according to the outcome of  
COVID-19 patients**

	Outcome					Ward						Intubation					
	Survived		Expired		P Value	ICU		Post-ICU		Routine		P Value	Yes		No		
	Mean	Standard Deviation	Mean	Standard Deviation		Mean	Standard Deviation	Mean	Standard Deviation	Mean	Standard Deviation		Mean	Standard Deviation	Mean	Standard Deviation	P Value
<b>LVEF</b>	59.35	9.10	51.77	10.48	<b>.001</b>	53.38	9.59	55.32	8.95	60.68	8.90	<b>.001</b>	54.89	7.87	58.89	9.61	.089
<b>LVEDD</b>	45.24	4.97	44.23	6.26	.383	44.68	5.80	45.25	5.27	45.24	4.91	.823	43.06	4.11	45.33	5.17	.072
<b>LVESD</b>	30.12	6.48	30.50	11.25	.813	30.95	8.93	30.54	5.49	29.86	6.82	.663	29.72	7.19	30.20	7.11	.785
<b>IVSD</b>	10.94	9.15	12.32	4.03	.486	11.33	3.36	13.34	15.08	10.56	8.09	.305	12.06	4.65	10.99	9.05	.624
<b>E/A</b>	1.12	.30	1.20	.66	.293	1.14	.52	1.05	.26	1.14	.31	.455	1.12	.32	1.13	.36	.920
<b>E'</b>	7.98	2.29	5.73	1.78	<b>.001</b>	6.20	1.77	7.11	2.27	8.31	2.28	<b>.001</b>	6.06	1.83	7.90	2.32	<b>.001</b>
<b>LAVI</b>	29.20	5.22	31.95	6.89	<b>.025</b>	30.63	6.10	30.07	6.17	29.05	5.11	.231	30.17	5.82	29.43	5.45	.586
<b>RVEDD</b>	28.12	14.72	31.00	10.50	.374	29.08	8.68	28.35	4.81	28.25	16.75	.950	31.67	11.51	28.12	14.56	.316
<b>RV FAC</b>	46.20	10.55	33.47	11.81	<b>.001</b>	36.99	11.57	42.44	11.65	47.59	10.08	<b>.001</b>	37.12	9.28	45.58	11.29	<b>.002</b>
<b>S Velocity</b>	12.91	2.32	12.18	3.06	.180	12.13	2.78	12.79	2.75	13.05	2.20	.101	12.06	2.44	12.91	2.41	.152
<b>TAPSE</b>	20.99	3.04	18.36	3.92	<b>.001</b>	18.98	3.65	19.75	3.57	21.41	2.80	<b>.001</b>	18.11	2.14	20.96	3.22	<b>.001</b>
<b>TRPV</b>	2.48	1.54	2.59	.40	.746	2.45	.41	2.51	.27	2.51	1.77	.971	2.61	.36	2.48	1.52	.738
<b>Systolic PAP</b>	28.45	6.68	41.82	14.85	<b>.001</b>	35.63	14.05	30.75	4.87	28.04	6.71	<b>.001</b>	40.67	14.26	28.84	7.51	<b>.001</b>

LVEF: left ventricular ejection fraction, LVEDD: left ventricular end-diastolic diameter, LVESD: left ventricular end-systolic diameter, IVSD: interventricular septal diameter, LAVI: left atrial volume index, RVEDD: right ventricular end-diastolic diameter, RV FAC: right ventricular fractional area change, TAPSE: tricuspid annular plane systolic excursion, TRPV: tricuspid regurgitation peak velocity, PAP: pulmonary artery pressure, ICU: Intensive Care Unit

**Supplementary Table 2- Echocardiographic measurements in tertiles for LVGLS**

		LVGLS Tertiles				
		Lower	Middle	Upper	Total	P Value
LVEF	Mean	52.19	59.22	64.22	58.54	<b>.001</b>
	Std. Deviation	8.92	7.69	7.86	9.52	
LVEDD	Mean	45.87	45.71	43.81	45.13	<b>.031</b>
	Std. Deviation	5.58	4.89	4.65	5.12	
LVESD	Mean	31.29	30.07	29.12	30.16	.197
	Std. Deviation	8.14	7.86	4.73	7.10	
IVSD	Mean	12.99	10.65	9.61	11.08	.066
	Std. Deviation	14.39	3.62	2.42	8.75	
E/A	Mean	1.09	1.09	1.19	1.12	.180
	Std. Deviation	.42	.34	.29	.35	
E'	Mean	7.00	7.58	8.64	7.74	<b>.001</b>
	Std. Deviation	2.41	2.17	2.16	2.34	
LAVI	Mean	30.96	29.65	27.87	29.49	<b>.004</b>
	Std. Deviation	6.42	4.75	4.70	5.47	
RVEDD	Mean	29.15	26.93	29.20	28.43	.571
	Std. Deviation	7.18	3.69	23.53	14.33	
RV FAC	Mean	40.61	45.04	48.89	44.84	<b>.001</b>
	Std. Deviation	12.02	10.74	9.81	11.36	
S Velocity	Mean	12.22	13.04	13.25	12.84	<b>.029</b>
	Std. Deviation	2.71	2.10	2.30	2.42	
TAPSE	Mean	19.49	21.32	21.33	20.71	<b>.001</b>
	Std. Deviation	3.58	2.76	3.00	3.23	
TRPV	Mean	2.71	2.42	2.35	2.50	.307
	Std. Deviation	2.38	.75	.35	1.46	
Systolic PAP	Mean	31.87	28.58	29.16	29.87	.068
	Std. Deviation	9.26	7.75	9.40	8.91	

LVGLS: left ventricular global longitudinal strain, LVEF: left ventricular ejection fraction, LVEDD: left ventricular end-diastolic diameter, LVESD: left ventricular end- systolic diameter, IVSD: interventricular septal diameter, LAVI: left atrial volume index, RVEDD: right ventricular end- diastolic diameter, RV FAC: right ventricular fractional area change, TAPSE: tricuspid annular plane systolic excursion, TRPV: tricuspid regurgitation peak velocity, PAP: pulmonary artery pressure, ICU: Intensive Care Unit

**Supplementary Table 3- Echocardiographic measurements in tertiles for RVGLS**

		RVGLS				P Value
		Lower	Middle	Upper	Total	
LVEF	Mean	53.96	58.13	63.54	58.54	.001
	Std. Deviation	10.13	7.37	8.41	9.52	
LVEDD	Mean	45.59	44.74	45.06	45.13	.614
	Std. Deviation	5.69	5.24	4.38	5.12	
LVESD	Mean	31.72	29.84	28.92	30.16	.060
	Std. Deviation	7.71	6.69	6.67	7.10	
IVSD	Mean	11.62	12.09	9.54	11.08	.192
	Std. Deviation	9.76	11.29	2.39	8.75	
E/A	Mean	1.09	1.12	1.16	1.12	.517
	Std. Deviation	.45	.31	.28	.35	
E'	Mean	6.84	7.78	8.59	7.74	.001
	Std. Deviation	2.48	2.04	2.17	2.34	
LAVI	Mean	30.58	30.14	27.75	29.49	.004
	Std. Deviation	6.24	5.17	4.50	5.47	
RVEDD	Mean	28.47	30.43	26.38	28.43	0.252
	Std. Deviation	7.54	23.41	3.05	14.33	
RV FAC	Mean	36.54	46.13	51.87	44.84	.001
	Std. Deviation	10.25	9.41	8.70	11.36	
S Velocity	Mean	12.10	13.12	13.29	12.84	.007
	Std. Deviation	2.50	2.50	2.08	2.42	
TAPSE	Mean	19.51	20.78	21.85	20.71	.001
	Std. Deviation	3.71	2.75	2.75	3.23	
TRPV	Mean	2.71	2.44	2.34	2.50	.297
	Std. Deviation	2.38	.36	.74	1.46	
Systolic PAP	Mean	31.78	29.91	27.91	29.87	.038
	Std. Deviation	9.18	8.11	9.11	8.91	

RVGLS: right ventricular global longitudinal strain, LVEF: left ventricular ejection fraction, LVEDD: left ventricular end-diastolic diameter, LVESD: left ventricular end- systolic diameter, IVSD: interventricular septal diameter, LAVI: left atrial volume index, RVEDD: right ventricular end- diastolic diameter, RV FAC: right ventricular fractional area change, TAPSE: tricuspid annular plane systolic excursion, TRPV: tricuspid regurgitation peak velocity, PAP: pulmonary artery pressure, ICU: Intensive Care Unit