

**Figure S1** A 29-year-old woman (LVEF: 62.4%; HR: 71 bpm) with pulmonary arterial hypertension. Images acquired by SegBH (A-C), RTCSCineMoCo (D-F), and RTCSCine (G-I) in identical base, mid, and apex short-axis slices. SegBH and RTCSCineMoCo showed equally good image quality, while RTCSCine images were more blurred. LVEF, left ventricular ejection fraction; HR, heart rate; RTCSCine, real-time cine imaging with compressed sensing; RTCSCineMoCo, real-time cine imaging combines compressed sensing reconstruction and retrospective fully automated respiratory motion correction; SegBH, segmented acquisition with retrospective electrocardiogram gating and breath-hold.