



**Fig. S2. Schematic diagram of the lumped parameter model.** Anatomic representation of the lumped parameter model used for calculation of left ventricular stroke work. This is a magnified image of the model seen in Fig. 1B in the main manuscript. R = Resistance; C = Compliance; L = Inductance; E = Elastance; ao = Ascending aorta; ub = Upper body; pda = Proximal descending aorta; SA = Systemic arteries; SAC = Systemic arteries and veins; SV = Systemic veins; CV<sub>0</sub> = Central venous pressure Input condition; av = Aortic valve; PVL = Para valvular leak; lv = Left ventricle.