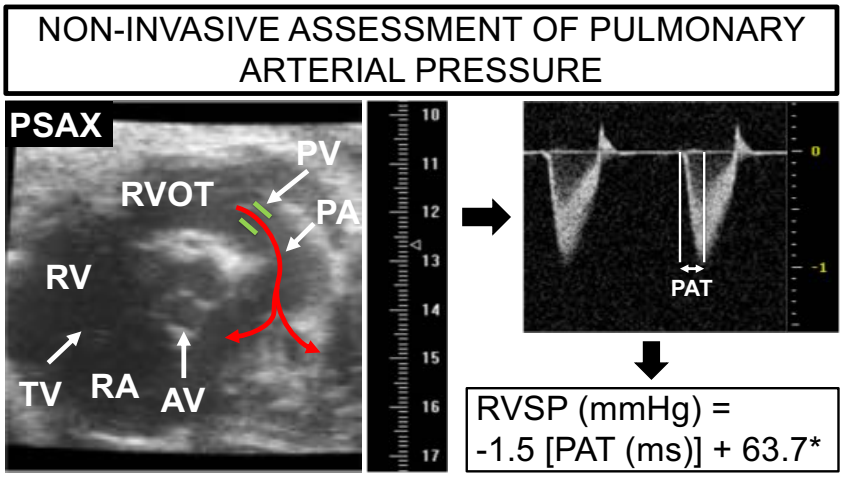
Supplementary figures:



PSAX: Parasternal short axis view
AV: Aortic valve
RA: Right atrium
TV: Tricuspid valve
RV: Right ventricle
RVOT: RV outflow tract
PV: Pulmonary valve
PA: pulmonary artery
→: Direction of blood flow
=: Position of pw-Doppler probe
PAT: Pulmonary arterial acceleration time
RSVP: Right ventricular systolic pressure

Figure S1: Non-invasive assessment of PAP. To allow for repetitive measurements of PAP, pulmonary arterial acceleration time (PAT) was assessed as a surrogate parameter for PAP/RVSP as described and verified by Thibault et al. [5]: Two-dimensional images of the pulmonary infundibulum were obtained from the parasternal short-axis view at the level of the aortic and pulsed-wave Doppler (pw-Doppler) recording of the pulmonary blood flow was obtained after positioning the pw- Doppler sample at the tip of the pulmonary valve leaflets and aligned to maximize laminar flow (Figure S1). As PAP/RVSP increases, PAT shortens. PAT and RVSP where shown to exhibit a linear correlation (RVSP [mmHg] = -1.5 x PAT [ms] + 63.7). To facilitate understanding, results were presented as PAT (ms) and as calculated RVSP* (mmHg) with a cutoff of 21 ms (PAT)/ 32 mmHg (RVSP*) between normal and elevated PAT [5].

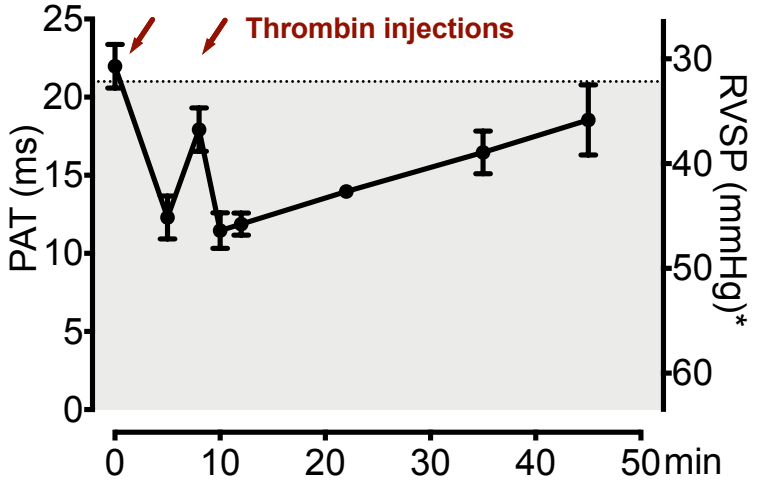


Figure S2: Short term changes of pulmonary pressure after repetitive sublethal pulmonary embolisms. Continuous measurements of PAT revealed a sudden PAP increase upon intravenous injection of sublethal thrombin doses (166 U/kg BW). Importantly, after a single thrombin dose, PAP decreased rapidly towards normal levels while after a second injection, PAP-normalization was decelerated. Results are presented as PAT (ms) and as calculated RVSP* (mmHg) with a cutoff of 21 ms (PAT)/ 32 mmHg (RVSP*) between normal and elevated PAT [5].