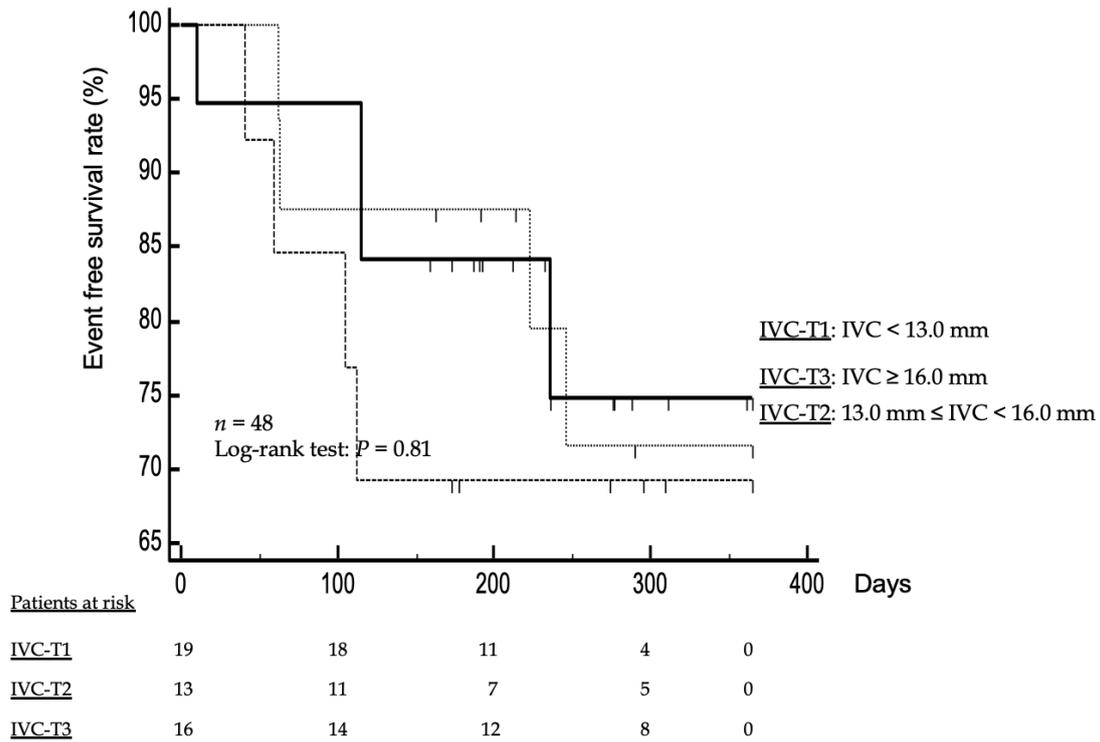


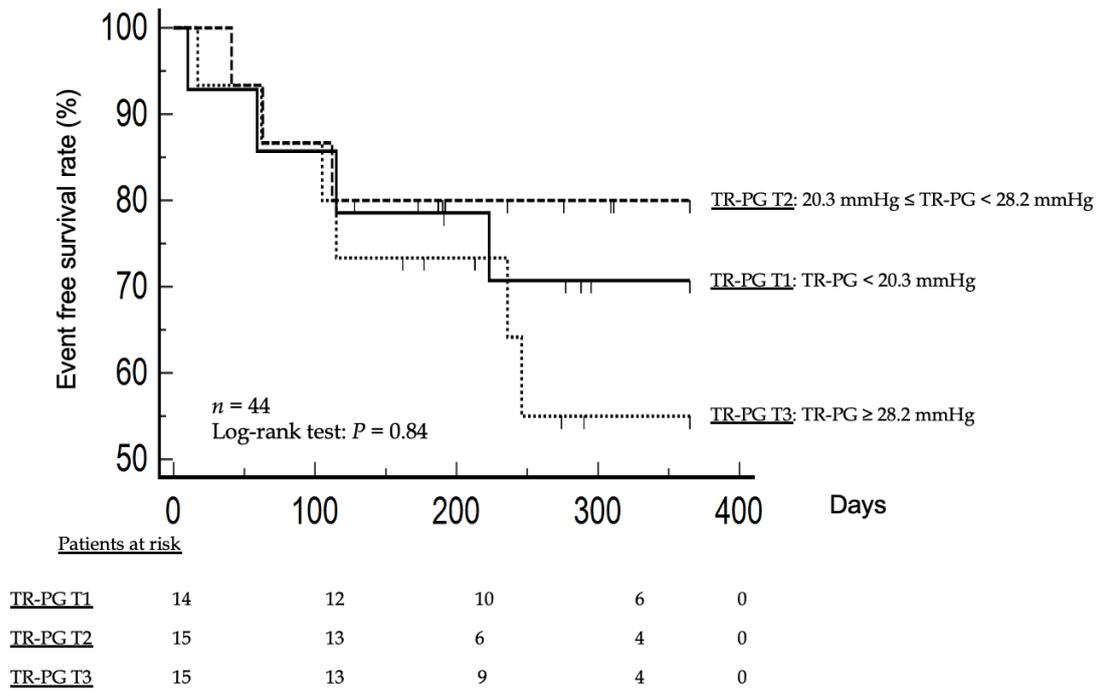
## Supplementary material



**Supplementary Figure 1 Position and tomographic view of the ultrasound examination.** Doppler images of portal vein (PV) flow were obtained from right-sided intercostal scanning. The waveform of PV flow was assessed from the right PV branch.



**Supplementary Figure 2 Kaplan-Meier curves for prognosis in patients with heart failure.** Patients with heart failure were divided into three groups according to the inferior vena cava (IVC) diameter at discharge (IVC-T1: IVC < 13.0 mm, IVC-T2: 13.0 mm ≤ IVC < 16.0 mm, IVC-T3: IVC ≥ 16.0 mm). IVC diameter at discharge did not correlate with cardiovascular outcomes in patients with heart failure.



**Supplementary Figure 3 Kaplan-Meier curves for prognosis in patients with heart failure.** Patients with heart failure (HF) were divided into three groups according to the tricuspid regurgitation pressure gradient (TRPG) at discharge (TRPG-T1: TRPG < 20.3 mm, TRPG-T2: 20.3 mm ≤ TRPG < 28.2 mm, TRPG-T3: TRPG ≥ 28.2 mm). The TRPG at discharge did not correlate with cardiovascular outcomes in patients with HF.