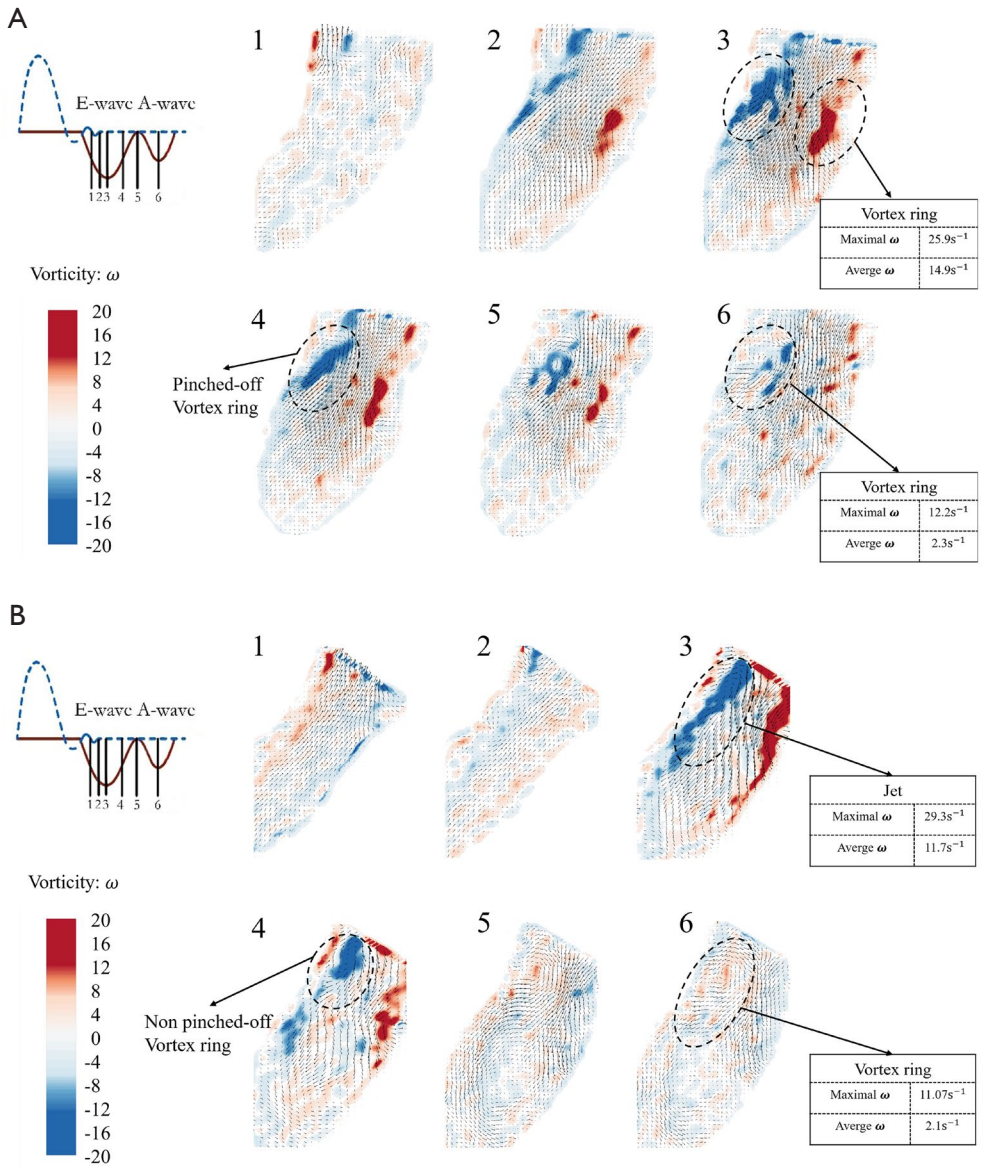

Figure S1 Velocity vector superimposed with vorticity contour of the LV blood flow for a rTOF patient case (A) and a volunteer case (B) during a diastole. The times denoted by 3 and 6 indicate the peak E-wave and the peak A-wave, respectively. In *Figure* 7, the evolution of the LV blood flow for a healthy volunteer and a rTOF patient was shown. For the healthy volunteer, a vortex ring structure appeared at the peak E-wave and then pinched off during E-wave deceleration. However, a jet-like flow was generated at the peak E-wave for the rTOF patient and a non-pinched-off vortex ring rolled up during E-wave deceleration. The underlying reason was the insufficiency of LV diastolic function of the rTOF patient, which caused there was no enough space for vortex ring formation. VFTvolume of the rTOF patient group was larger than that of the healthy volunteer's group. It is undoubted that the velocity of jet-like blood flow was larger than that of vortex-ring blood flow, resulting in the maximal vorticity of LV blood flow during E wave phase in rTOF case was larger than that for healthy volunteer. However, the average vorticity of LV blood flow in rTOF case was less than in volunteer case during E wave phase (11.7 s^{-1} *vs.* 14.9 s^{-1}). This suggests that the total energy of LV blood in rTOF case is less than that in volunteer case. rTOF, repair of tetralogy of Fallot; LV, left ventricular.

https://dx.doi.org/10.21037/tp-22-67