The management of patients with severe symptomatic tricuspid regurgitation (TR) remains extremely challenging for Cardiac Heart Team. Studying the load on the right ventricle and the interaction between among the ventricle, valve and pulmonary artery could be the key to detecting such patients. The systolic pulmonary artery pressure (sPAP)/pulmonary artery acceleration time (PAAT) ratio could be used as an indicator a marker of pulmonary vascular load, to identify patients who could benefit from transcatheter tricuspid valve repair (TTVR). In this case report we describe a patient with severe tricuspid regurgitation and mild pre-capillary pulmonary hypertension. sPAP/PAAT ratio was 0.6. After extensive discussion inside of the ‘Parma Heart Team’, cardiac surgery was ruled out. Other percutaneous device were excluded for the dilatation of tricuspid annulus and the retraction of the flaps. The choice of the device was directed toward a bicaval device called ‘TricValve’. Device implantation: The two fully pre-mounted devices are implanted via femoral access with fluoroscopy and transesophageal echo guidance under monitored anesthesia care. At the ECO-CT control, the dimensions of the IVC were reduced (30mm from 41mm) while the hepatic vein backflow was absent. In this case device placement prevents regurgitant flow in the IVC and SVC, reduced liver congestion and right ventricle stroke volume into the pulmonary system and cardiac output was improved. The patient’s selection, the ventricular-arterial coupling and the type of device depending on the anatomic functional conditions are the challenges. sPAP/PAAT ratio < 0.6 could be a good predictor of the success of the procedure, but will have to be validated in a larger study.