

## **169. A Case Report of Transcatheter Edge to Edge Repairment in Patient Combined With Mitral Prolapse and Perforation: New Attempt to Expand Operating Boundary**

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### **Body**

**Background:** Transcatheter edge to edge repairment (TEER) has been described as an available option for inoperable or at high surgical risk patients with severe mitral regurgitation (MR) in multiple guidelines. For complex MR especially with perforation lesion, there has been few case reports published in a manner of transcatheter clip treatment. In this case, we reported a severe MR combined with perforation treated with interventional therapy.

**Case:** An 82-year-old female with progressive short of breath caused by severe MR, heart failure and bilateral pleural effusion had poor response to guideline-directed management (GDMT) and therapy for one month. She was transferred to our center to conduct TEER due to the high surgical risk, unstable hemodynamic status and repetitive clinical symptoms. Transesophageal echocardiogram (TEE) revealed posterior leaflet prolapse in the P1 and P2 segments with a tiny hole and indicated the size of perforation, about 4.1×5.6mm, by Cardiac 3D Quantification (Philips Qlab, America). We finally used two MitraClip™ XTR devices to clip the prolapse and occlude the hole directly in once grasp simultaneously. After successful double-clips implantation, the severity of regurgitation and patient's presentations are both improved.

**Discussion:** Many operators tried using Amplatzer Duct Occluder to occlude the residual flow previously, which may lead to devices-related hemolysis. The XTR clip in 5mm width is wide enough to cover the perforation. Additionally, the sequence of clip transplantation is crucial for procedure success. Based on the first capture to restrict the prolapse, subsequent procedure for hole occlusion can avoid aggravating perforation.

