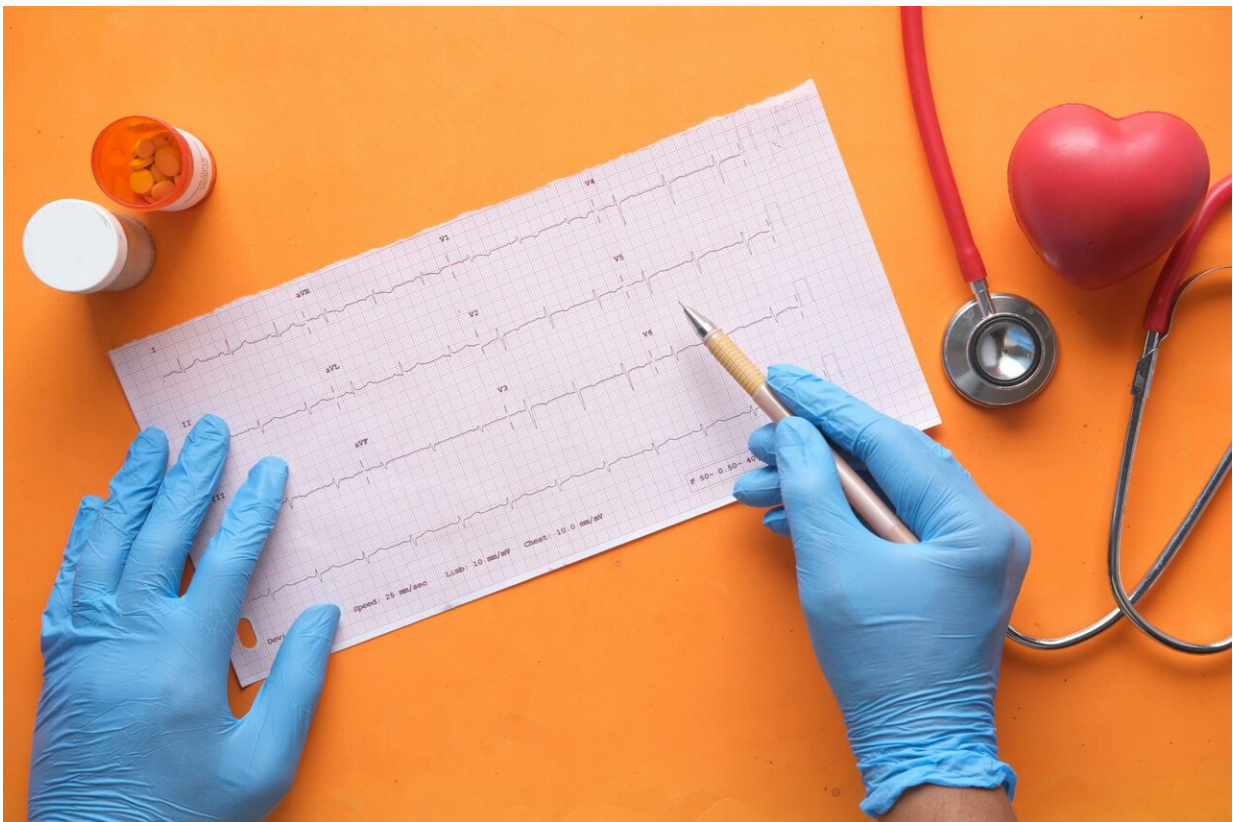


Transcatheter valve repair better than medical therapy in patients with heart failure and mitral regurgitation: Study

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Mitral transcatheter edge-to-edge repair (M-TEER) reduced cardiovascular death and heart failure (HF)-related hospitalizations with

improved health status in patients with HF and moderate to severe functional mitral regurgitation (FMR), according to late-breaking research presented in a Hot Line session today at [ESC Congress 2024](#). The paper is [published](#) in the *New England Journal of Medicine*.

"Patients with FMR who are ineligible for surgery have limited treatment options. When M-TEER was studied previously, mainly in patients with severe FMR, one trial showed positive effects² while the other was neutral.³ RESHAPE-HF² now provides additional compelling evidence for using M-TEER over optimal [medical therapy](#) alone, which will help to guide medical decision making," said Principal Investigator, Professor Stefan Anker from the Charite University Hospital, Berlin, Germany.

This investigator-initiated randomized controlled trial recruited patients with symptoms of HF (New York Heart Association [NYHA] class ≥ 2) despite optimal guideline-directed medical therapy, who had left ventricular ejection fraction [LVEF] $\geq 20\%$ and $\leq 50\%$, MR grade 3+ or 4+, and had a recent hospitalization for HF or elevated plasma natriuretic peptide concentrations within the last 90 days. Patients for whom mitral valve surgery was recommended were not eligible. Patients were randomized 1:1 to M-TEER plus optimal medical therapy or optimal medical therapy alone.

The three primary endpoints were: composite rate of total (first and recurrent) HF hospitalizations and cardiovascular death within 24 months; the rate of total HF hospitalizations within 24 months; and the change from baseline to 12 months in the Kansas City Cardiomyopathy Questionnaire (KCCQ) overall score, which assesses the impact of HF on quality of life.

In total, 505 patients were randomized from 30 centers in nine countries. The mean age was 70 years and 20% were female. The mean LVEF was

31% and HF was NYHA class III or IV in around three-quarters of patients. The mean KCCQ overall summary score was 46, which indicates significant symptoms and limitations due to HF.

At 24 months, the rate of total hospitalizations for HF and [cardiovascular death](#) was significantly lower in the M-TEER group vs. the control group (37.0 per 100 patient-years vs. 58.9 per 100 patient-years; rate ratio 0.64; 95% confidence interval [CI] 0.48–0.85; $p=0.002$). The rate of total hospitalizations for HF within 24 months was significantly reduced by 41% in the M-TEER group vs. the control group (26.9 per 100 patient-years vs. 57.8 per 100 patient-years; rate ratio 0.59; 95% CI 0.42–0.82; $p=0.002$).

In addition, the mean (standard deviation [SD]) change from baseline to 12 months in the KCCQ overall summary score was greater (improved) in the M-TEER group (+21.6 [26.9]) than in the control group (+8.0 [24.5]), resulting in a mean difference of +10.9 points (95% CI 6.8–15.0; p

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