INTERVENTIONAL CARDIOLOGY

TAVR improves survival in inoperable patients with severe aortic stenosis

Transcatheter aortic valve replacement (TAVR) has emerged as an efficacious strategy to treat symptomatic severe aortic stenosis in high-risk patients who are not suited for surgical valve replacement. A new study now demonstrates that TAVR is more effective in reducing mortality than standard therapy in these patients.

Investigators in the PARTNER trial randomly assigned 342 high-risk, inoperable patients with aortic stenosis to receive either TAVR or standard therapy. The clinical outcome of left ventricular (LV) dysfunction was defined as LV ejection fraction (LVEF) <50%.

Baseline LV dysfunction was present in approximately one-third of all patients, and did not affect 30-day or 1-year survival after TAVR. However, baseline LV dysfunction was associated with increased mortality at 1 year in patients receiving standard therapy (59.3% versus 45.8% with normal LVEF; HR 1.71, 95% CI

1.08–2.71; $P=0.02$). LVEF improvement, defined as an increase in LVEF $\geq 10\%$ at 30 days, was observed in 48.7% of TAVR patients and 30.4% of those receiving standard therapy ($P=0.08$). In patients with LV dysfunction who received standard therapy, LVEF improvement conferred favourable 1-year, but not 2-year, survival.

“These data confirm the efficacy and safety of TAVR in inoperable patients with severe [aortic stenosis] and mild or moderate LV dysfunction,” explain the investigators. “Future efforts should ... [clarify] the impact of more severe LV dysfunction and the lack of contractile reserve on outcomes of TAVR”.

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