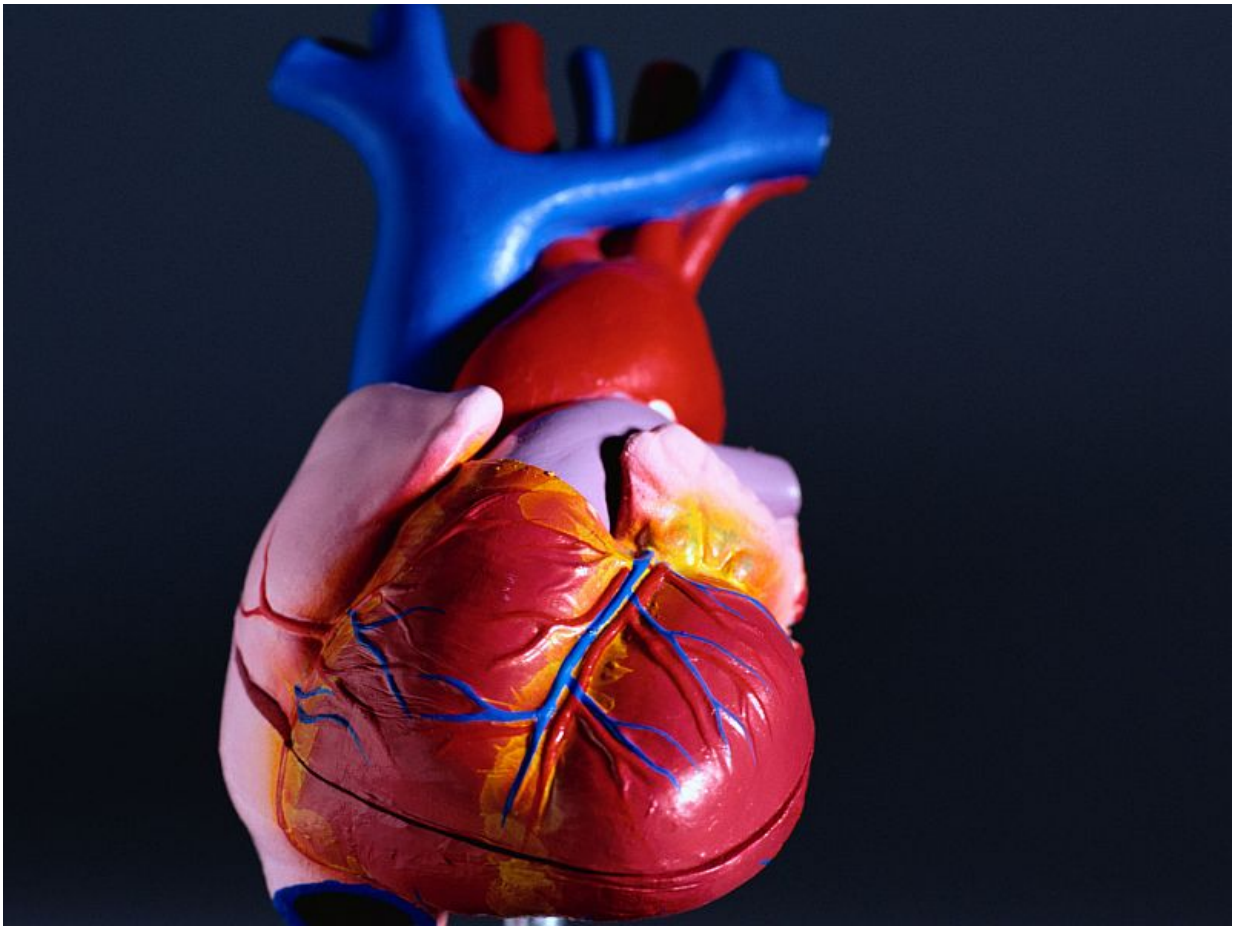
Centrifugal-flow left ventricular assist device noninferior

February 3 2017



(HealthDay)—For patients with advanced heart failure, a newer-design

centrifugal-flow left ventricular assist device (LVAD) is noninferior to an axial-flow LVAD, according to a study published in the Feb. 2 issue of the *New England Journal of Medicine*.

Joseph G. Rogers, M.D., from the Duke University School of Medicine in Durham, N.C., and colleagues conducted a multicenter trial involving 446 patients with advanced heart failure. Patients who were randomized to the study device (centrifugal-flow; 297 patients) or control device (axial-flow; 148 patients) were included as the intention-to-treat population. (One patient who had been assigned to the control device did not receive any device.)

The researchers found that the primary end point of survival at two years free from disabling stroke or device removal for malfunction or failure was achieved in 164 and 85 patients in the study and control groups, respectively. The primary end point analysis showed noninferiority of the study device versus the control device (estimated success rates: 55.4 and 59.1 percent, respectively; absolute difference, 3.7 percentage points; 95 percent upper confidence limit, 12.56 percentage points; P = 0.01 for noninferiority). Device malfunction or device failure requiring replacement occurred in more patients in the control group than the study group (16.2 versus 8.8 percent), while more patients in the study group had strokes (29.7 versus 12.1 percent).

"A small, intrapericardial, centrifugal-flow LVAD was found to be noninferior to an axial-flow LVAD with respect to survival free from disabling stroke or device removal for malfunction or failure," the authors write.

The study was funded by HeartWare, which makes the centrifugal-flow device.

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