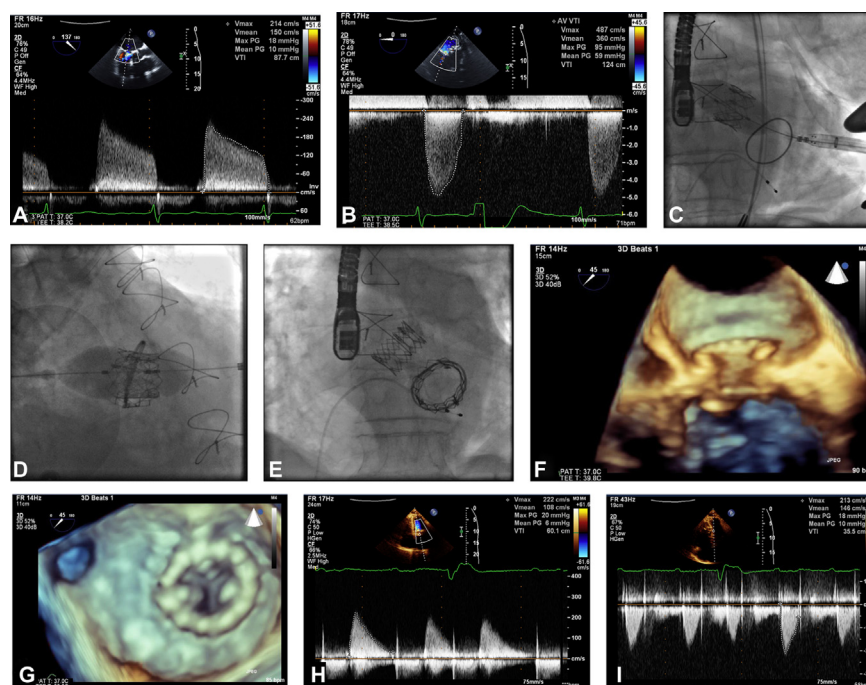## IMAGES IN CARDIOLOGY

Simultaneous Transapical Implantation of an Inverted Transcatheter Aortic Valve-in-Ring in the Mitral Position and Transcatheter Aortic Valve Replacement

First-in-Human Report

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A 74-year-old man with a history of surgical mitral ring annuloplasty and evidence of severe mitral **(A)** and aortic stenosis **(B)** (Online Video 1) was admitted to our center in New York Heart Association functional class IV refractory to medical therapy. Considering the high surgical risk, we decided to perform a simultaneous implantation of an inverted transcatheter aortic valve (TAV) in the mitral position and transcatheter aortic valve replacement (TAVR) by the transapical approach.

A 26-mm Sapien TAV (Edwards Lifesciences, Irvine, California) was implanted in the aortic position (**C**, Online Videos 2 and 3) and an inverted 29-mm Sapien TAV was implanted in the mitral position (**D, E,** Online Videos 4 and 5). Three-dimensional transesophageal echocardiography showed a good procedural result despite 2 moderate mitral paravalvular leaks **(F, G)**.

The patient's functional class improved to class II at the 1-month follow-up **(H, I)**.

We report the first case of simultaneous transapical implantation of an inverted TAV-in-ring in the mitral position and TAVR.