

Editorial

In Memoriam: Alain G. Cribier, MD

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Alain G. Cribier, MD, the French interventional cardiologist who pioneered the first balloon dilatation of the aortic valve for the treatment of calcific aortic stenosis in 1985 and the first transcatheter aortic valve replacement (TAVR) on April 16, 2002, died on February 16, 2024, at the age of 79 years. Dr Cribier was a true visionary who dedicated years to searching for a nonsurgical solution for his patients with severe calcific aortic stenosis. Dr Cribier's unrelenting research started in the 1960s, during his time in the surgical department of the University of Paris hospital and continued at the Hôpital Charles-Nicolle in Rouen, France. His desire to pursue the catheter-based treatment of a variety of cardiac conditions led him to work with Jeromy Swan, MD, and William Ganz, MD, at Cedars-Sinai Medical Center in Los Angeles, California.

Upon returning to Rouen, he continued his search for transcatheter solutions for patients with heart disease. Dr Cribier's ambition was to find a treatment for patients with symptomatic aortic stenosis who were not candidates for surgical aortic valve replacement because of its prohibitive operative risk. He soon realized that balloon valvuloplasty could be a solution for patients for whom surgery presented a high risk. Soon after the first balloon aortic valvuloplasty, Dr Cribier realized that this technique was not a permanent or long-lasting solution for most patients with aortic stenosis. He continued his research and found a better solution with a percutaneous balloon-expandable transcatheter heart valve with the help of engineers at Percutaneous Valve Technologies in Caesarea, Israel.

After 3 years of bench testing followed by an animal study, Dr Cribier was ready to perform the first-in-human procedure on April 16, 2002, on a 57-year-old man with severe aortic valve stenosis who was in cardiogenic shock and for whom surgery was considered too high a risk. This patient survived the procedure and even traveled to several medical meetings to talk about his experience with the TAVR procedure. Dr Cribier soon realized that this procedure, with further refinement in technology and technique, could be offered to many patients with less severe disease.

Since 2002, several hundred thousand TAVR procedures have been performed in symptomatic patients with severe aortic valve stenosis with noninferiority or superiority of TAVR vs surgery and with low, intermediate, and high levels of surgical risk. The studies for symptomatic patients with moderate aortic stenosis and for asymptomatic patients with severe aortic stenosis are ongoing and show encouraging preliminary results. Another of Dr Cribier's achievements was the development of a mitral valve commissurotomy device for the treatment of patients with severe mitral valve stenosis.

This author had the distinct pleasure of meeting Dr Cribier on several occasions, most notably in 2013, when he was a recipient of The Texas Heart Institute's Ray C. Fish Award for Scientific Achievement for his outstanding contributions to interventional cardiology. Dr Cribier was the recipient of many awards for his groundbreaking



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work and achievements in his career, including the National Order of the Legion of Honour in 2012; The Texas Heart Institute Ray C. Fish Award for Scientific Achievement in 2013; and the American College of Cardiology Presidential Citation in 2022.

Dr Cribier will be greatly missed by the cardiovascular community, but his legacy will undoubtedly live on. We honor him for his exemplary contributions to science and his dedication to improving the quality of care for patients with heart disease.

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Abbreviations and Acronyms

TAVR	transcatheter aortic valve replacement
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