Abstract

OBJECTIVE: To compare the 1-year outcomes of complete percutaneous approach versus surgical vascular approach for transfemoral transcatheter aortic valve implantation (TAVI), among "real-world" patients from the multi-center Brazilian TAVI registry.

BACKGROUND: Vascular access still remains a major challenge for TAVI via transfemoral approach. Vascular access through complete percutaneous approaches or through open surgical vascular techniques seems to be acutely similar. However, the long-term outcomes of both techniques remain poorly described.

METHODS: The study population comprised all patients treated via transfemoral route in the Brazilian TAVI registry, a "real-world", nation-based, multi-center study. Patients were divided according to the initial vascular access approach (percutaneous vs. surgical) and clinically followed-up for 1 year. The primary endpoint was the incidence of combined adverse events all-cause mortality, life-threatening bleeding, and/or major vascular complication at 1 year.

RESULTS: A total of 402 patients from 18 centers comprised the study population (percutaneous approach in 182 patients; surgical cutdown approach 220 patients). The incidence of combined adverse events was not different in the percutaneous and the surgical groups at 30 days (17.6% vs. 16.3%; P = 0.8) and at 1 year (primary endpoint) (30.9% vs. 28.8%; P = 0.8). Also, the study groups overall were comparable regarding the incidence of each individual safety adverse events at 30 days and at 1 year.

CONCLUSION: Total percutaneous techniques or surgical cutdown and closure may provide similar safety and effectiveness during the first year of follow-up in patients undergoing transfemoral TAVI. © 2015 Wiley Periodicals, Inc.

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KEYWORDS: aortic stenosis; transcatheter aortic valve implantation; vascular access

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