Trans-Axillary (TAX) approach to trans-catheter aortic valve replacement (TAVR) is an established method for alternate access. Nonetheless, the published Tax-TAVR experience is limited and mostly consists of small series or registry data. Furthermore, real-world practice patterns show constant decrease in TAX-TAVR with the vast majority of cases being done using femoral access.

TAX-TAVR cases performed between May 2015 and November 2017 at a single center were retrospectively reviewed.

TAX-TAVR was performed in 40 patients with a mean age of 82.5±9.8 years. The average STS risk score was 7.8±4. No cases were aborted, converted to surgical AVR or required mechanical circulatory support.

Post TAVR mean gradient was 4.3±2.3 mmHg with significant decrease compared to preoperative gradient (P<0.001). No moderate or severe paravalvular leaks demonstrated in our cohort and 29% of patients had mild paravalvular leaks. 17.5% of patients required blood transfusion. 30-day complications consisted of a 13.9% permanent pacemaker placement rate, a single patient (2.5%) with brachial plexus neuropathy, mild stroke or clinically-insignificant dissection of the subclavian artery. Three heart failure readmissions were noted at 1 year. No mortality or other complications recorded at 1 year follow-up. The average length of stay was 4.3±1.6 days.

Our experience with TAX-TAVR represents one of the largest single-center series published. It reveals good short and midterm outcome metrics. TAX approach is a reliable solution for marginal peripheral vascular access or severely diseased aorta.