

Local Anaesthesia and Sedation Safe for TAVR



A new study indicates that 30-day mortality rates as well as the rates of procedure related complications were similar in transcatheter aortic valve replacement (TAVR) procedures performed with or without the presence of an anaesthesiologist in the catheterisation laboratory. The findings are reported in the International Journal of Cardiology.

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The study suggests that TAVR could not only be performed safely under local anaesthesia and sedation, but also that the surveillance of an anaesthesiologist in the catheterisation laboratory may not be mandatory in stable, intermediate/high risk TAVR patients.

"It is still too early to recommend this strategy for all TAVR centres and all TAVR patients, but it may become gradually the recommended strategy in experienced centres, in the majority of stable, intermediate risk patients. Larger and randomised studies are needed in order to turn this part of the TAVR minimalistic approach into a common practice," write the study authors, who are affiliated with the Department of Cardiology, Tel-Aviv Medical Center, Tel-Aviv, Israel.

During the last few years there is a shift from performing TAVR under general anaesthesia (GA) towards conscious sedation (CS) and local anaesthesia (LA) only. In the vast majority of centres, sedation is guided by a qualified anaesthesiologist. At Tel-Aviv Medical Center, the authors said all TAVR procedures are being performed under LA and mild sedation, however, since September 2014, a large portion of TAVR procedures are being performed under LA without the presence of an anaesthesiologist. The decision to perform TAVR procedure without the presence of an anaesthesiologist was made because of three co-existing factors: the growing number of TAVR procedures performed, the increased rate of intermediate risk patients, and the lack of parallel increase in anaesthesiologist's availability.

In this study, the researchers compared 30-day outcome in patients undergoing transfemoral TAVR under LA and CS with and without the attendance of an anaesthesiologist in the catheterisation laboratory. From September 2014 through April 2016, 324 patients (mean age 82.8 ± 6) with severe symptomatic aortic stenosis were assigned to transfemoral TAVR with (150 patients) or without (174 patients) the attendance of an anaesthesiologist. Baseline clinical and echocardiographic characteristics were similar between the groups. No difference in procedural and 30-day mortality, vascular complications, and major/life threatening bleeding were observed between the groups ($p > 0.1$, for all).

Based on the results, the presence of an anaesthesiologist in the catheterisation laboratory during transfemoral TAVR procedures did not significantly change 30-day outcome.

Most studies reporting the impact of anaesthetic approach on TAVR outcome compared general to local anaesthesia. GA allows complete airway control and enables real-time transesophageal echocardiography (TEE) guidance during TAVR. It might provide more stable conditions by preventing the patients from moving, especially during the critical phase of valve deployment or rapid pacing. And finally, it allows a quick conversion to bail-out surgery in case of procedural complications. On the other hand, GA itself carries a procedural mortality risk, and in comparison to local anaesthesia and mild sedation, it prolongs the procedural time and hospital stay.

The present study is the first report of a comparison between LA with CS with and without the attendance of an anaesthesiologist, according to the authors, who also cited important limitations to their study.

Source: [International Journal of Cardiology](#)

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