

# COMPARATIVE STUDY BETWEEN SEDATION AND GENERAL ANAESTHESIA AS AN ANAESTHESIOLOGIC APPROACH FOR PATIENTS TREATED WITH TAVR. WHICH IS THE BEST FOR HEMODYNAMIC STABILITY?

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**Introduction:** Transcatheter Aortic Valve Replacement (TAVR) is the main therapeutic option in high risk patients with severe aortic stenosis. The anesthesiologic management is still debatable regarding the choice between general anaesthesia (GA) or sedation.

**Objectives:** We aimed to compare clinical parameters and outcomes between general anaesthesia and sedation in patients undergoing TAVR.

**Methods:** In this study, 102 patients who underwent TAVR procedure with a diagnosis of severe AS were retrospectively evaluated. Patients were divided according to the type of anaesthesia administered during each procedure into patients receiving GA and patients receiving sedation.

**Results:** Sedation was used in most cases of TAVR (77.5%). Patients who underwent TAVR under general anaesthesia had increased odds of elevated Mean Arterial Pressure (MAP) ( $p < 0.001$ ). Also, it was found that administration of sedation versus GA was associated with shorter anaesthesia time ( $p < 0.001$ ), total procedural time ( $p < 0.001$ ) and need for noradrenaline administration ( $p = 0.001$ ). GA was associated with complications such as Acute Kidney Injury ( $p < 0.004$ ), respiratory failure ( $p < 0.001$ ), prolonged ICU stay and hospitalization (all  $p < 0.001$ ).

**Conclusions:** In this study, it was found that sedation is associated with smaller changes in MAP, with shorter anaesthesia time, total operative time and need for noradrenaline administration in comparison to GA, whilst administration of GA was associated with higher complication rate, increased hospitalization and Intensive Care Unit (ICU) length of stay. These results suggest that sedation is associated with increased procedural hemodynamic stability and better clinical outcomes when compared with GA.

FIGURE 1: Boxplots comparing time of anesthesia, time of surgery, and ΔMAP

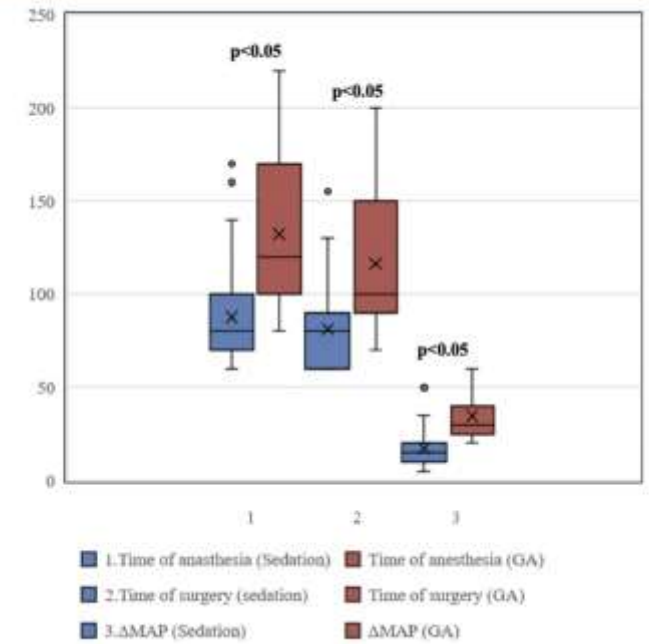
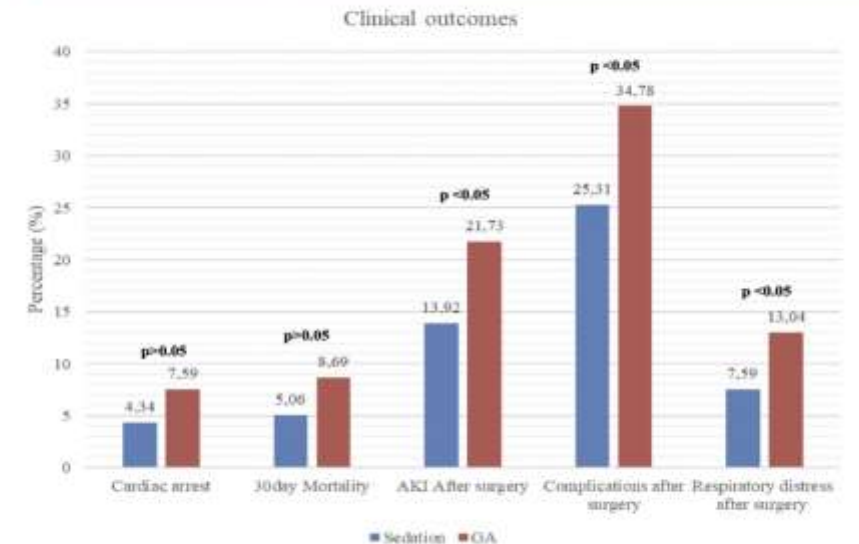


FIGURE 2: Diagram showing complications in the perioperative period





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# Comparative study between sedation and general anesthesia as an anesthesiologic approach for patients treated with TAVR. Which is the best for hemodynamic stability?

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