Reviewer A

The authors have done an excellent job on this work, creating matched cases:

Reviewer's Questions:

1. What criteria were used to assign patients to either the general anesthesia (GA) or sedation groups?

Reply: There were no specific criteria used. It was primarily based on institutional practices and guidelines at that time. At the initial stages of introducing the Transcatheter Aortic Valve Implantation (TAVI) procedures into our clinical practice, the main reasons for general anesthesia (GA) were strict requirements for transesophageal echocardiography (TEE) and keep patient totally still to ensure optimal placement and positioning of the valve. These requirements were followed for both, trans-apical and trans-femoral TAVI approaches. However, with the shift towards transfemoral access site and less reliance on TEE, there was also a modification of anesthesia techniques, with a preference of conscious sedation (CS). There was certainly an overlap of GA and CS cases during the study period allowing for optimal matching of the two groups.

2. During the early stages of Transcatheter Aortic Valve Implantation (TAVI), considering the learning curve of surgeons and the team, there was a prevalent use of general anesthesia, potentially introducing confounding factors on the admission day. While I agree with the authors, it is crucial to note that after 2015, there was a shift toward sedation. Patients who underwent GA might have exhibited greater severity in terms of underlying conditions or placement difficulties. Consequently, the patient group selected for GA may have had underlying issues that could confound the length of stay. I recommend adding this consideration as a limitation in the discussion.

Reply: The reviewer is raising an excellent point, and we have added this to our limitations section. Page 10, line 19. It now reads: "Even though both groups of patients were similar with respect to major underlying comorbidities at baseline, there may have been some subtle confounding differences between the two groups that were not accounted for but contributed to longer length of hospital stay in the GA group."

3. Regarding Table 1, it is advisable for the authors to incorporate the Standardized Mean Difference (SMD) or explicitly state the p-value when comparing the two groups. Alternatively, they may opt to include the overall patient data before and after matching directly in the table.

Reply: Matching was performed only for 'AGE' and 'SEX'. If a perfect match for age could not be achieved for a particular pair of patients, a one-year difference between the two patients was accepted. For example, two male patients, 77-year-old and 76-year-old were accepted as a matched

pair.

4. The presentation of demographic data related to anesthetic aspects, including ASA status (even though patients in this group are ASA3-4), EUROscoreII, Frailty index, or STSscore, is essential and should be included. - In all tables comparing data between the two groups, it is recommended to display the p-value or 95% confidence interval, irrespective of statistical significance.

Reply: We have added ASA status and STS-TAVR In-Hospital Predicted Mortality Risk, to Table 1. We have added p-values for all variables in Tables 1 and 2 as requested. We did not provide questionnaires to these patients to calculate their frailty scores.

5. If data on the incidence of vascular injuries were collected, I suggest including this information in Table 2 for a comprehensive analysis.

Reply: Unfortunately, we did not collect that data on vascular injuries. However, from our current observations, the incidence of immediate vascular injuries requiring surgical interventions are very low.

Reviewer B

1. Please use the correct form of decimals in the Tables. For example, ".98" should be "0.98".
Reply: Corrected as requested.

2. Please add column headings for the first column of Table 2 and Table 3, respectively.
Reply: Added as requested.

3. Please indicate the meaning of the symbol $ in the footnote of Table 3.
Reply: Revised as requested.