

STROBE Checklist for the manuscript titled "Preventive Aortic Stent Graft Implantation Prior to Thoracic Surgery: Early and Midterm Results":

Title and Abstract

1. **Title:** The title should clearly indicate that the study is observational.
 - **Completed:** Yes
 - **Title:** Preventive aortic stent graft implantation prior to thoracic surgery: Early and midterm results
2. **Abstract:** Provide a structured abstract including Background, Methods, Results, and Conclusion.
 - **Completed:** Yes
 - **Abstract:** Provided in the manuscript

Introduction

3. **Background/Rationale:** Explain the scientific background and rationale for the study.
 - **Completed:** Yes
 - **Details:** Background provided in Introduction section explaining the need for TEVAR before thoracic surgery and the gap in literature.
4. **Objectives:** State the specific objectives or hypotheses.
 - **Completed:** Yes
 - **Details:** Objectives clearly outlined as evaluating feasibility, perioperative risk, and a literature review.

Methods

5. **Study Design:** Describe the study design (e.g., cohort, case-control).
 - **Completed:** Yes
 - **Details:** Retrospective data analysis
6. **Setting:** Describe the setting, locations, and relevant dates.
 - **Completed:** Yes
 - **Details:** University Hospital Zurich, January 2010 to April 2024
7. **Participants:** Describe the eligibility criteria, settings, and locations.
 - **Completed:** Yes
 - **Details:** Patients with tumor mass infiltration of the aortic wall who received TEVAR before tumor surgery
8. **Variables:** Define all variables, including outcome variables.
 - **Completed:** Yes
 - **Details:** Primary outcome: technical success; Secondary outcome: procedural success and perioperative morbidity/mortality
9. **Data Sources/Measurement:** Describe methods of data collection and sources.
 - **Completed:** Yes
 - **Details:** Clinical information system database, anonymized data file
10. **Bias:** Describe any potential sources of bias.
 - **Completed:** Yes
 - **Details:** Retrospective nature of the study and small sample size
11. **Study Size:** Explain how the sample size was determined.
 - **Completed:** Yes
 - **Details:** Sample size not determined statistically; limited by the number of available cases

12. **Quantitative Variables:** Define quantitative variables and describe any methods used to analyze them.

- **Completed:** Yes
- **Details:** Demographic and clinical data analyzed descriptively

13. **Statistical Methods:** Describe statistical methods used to analyze the data.

- **Completed:** Yes
- **Details:** Descriptive analysis, percentages, median, range; statistical software used: Excel and IBM SPSS

Results

14. **Participants:** Give the number of participants at each stage of the study.

- **Completed:** Yes
- **Details:** 15 patients included, details provided in Results section

15. **Descriptive Data:** Provide descriptive data for each group.

- **Completed:** Yes
- **Details:** Tables with demographic data, tumor entities, and treatment

16. **Outcome Data:** Report numbers of outcome events or summary measures.

- **Completed:** Yes
- **Details:** Outcomes including technical success, procedural success, complications, and mortality rates

17. **Main Results:** Provide the main results with confidence intervals if applicable.

- **Completed:** Yes
- **Details:** Results include technical success (100%), procedural success (80%), 30-day mortality rate (6.7%)

18. **Other Analyses:** Report any other analyses performed (e.g., subgroups).

- **Completed:** Yes
- **Details:** Analysis of tumor resection status and complications

Discussion

19. **Key Results:** Summarize key results with reference to objectives.

- **Completed:** Yes
- **Details:** Summarized feasibility and safety of TEVAR, comparison to literature

20. **Limitations:** Discuss limitations of the study.

- **Completed:** Yes
- **Details:** Small sample size, retrospective nature, limitations of generalizability

21. **Interpretation:** Interpret results with respect to hypotheses or objectives.

- **Completed:** Yes
- **Details:** Confirmed feasibility of TEVAR with low morbidity and mortality

22. **Generalizability:** Discuss generalizability of findings.

- **Completed:** Yes
- **Details:** Limitations in generalizability due to small sample size and retrospective design

Other Information

23. **Funding:** Describe funding sources.

- **Completed:** Yes
- **Details:** No external funding

24. **Conflict of Interest:** Declare any conflicts of interest.

- **Completed:** Yes

- **Details:** The authors declared the following potential conflict of interest concerning publication of this article's research, authorship, and/or publication: Benedikt Reutersberg is a proctor for Terumo Aortic and Cook Medical. Alexander Zimmermann is a proctor for Cryolife/JotecArtivion, Terumo Aortic, Cook Medical, Lombard/Endovastec/Microport and iVascular. He is a member of an Advisory Board for Medtronic, Artivion, and iVascular. Isabelle Opitz declares the following potential conflicts of interest: Roche (Institutional Grant and Speakers Bureau), Astra-Zeneca (Advisory Board and Speakers Bureau), MSD (Advisory Board), BMS (Advisory Board), Medtronic (Institutional Grant and Advisory Board), Intuitive (Proctorship).

25. **Ethical Approval:** State whether ethical approval was obtained.

- **Completed:** Yes
- **Details:** Approved by the institutional ethics committee, informed consent obtained

26. **Author Contributions:** Detail contributions of each author.

- **Completed:** Yes
- **Details:** Provided in the Author Contributions section