

STROBE Statement—checklist of items that should be included in reports of observational studies

|                      | Item No. | Recommendation  | Page No. | Relevant text from manuscript  |
|----------------------|----------|---|----------|--|
| Title and abstract   | 1        | (a) Indicate the study’s design with a commonly used term in the title or the abstract  | 1        | “This retrospective cohort study included 106 patients with HF and LBBB undergoing successful LBBaP implantation.”   |
|                      |          | (b) Provide in the abstract an informative and balanced summary of what was done and what was found   | 1        | Structured abstract includes background, objectives, methods, results and conclusion.  |
| Introduction         |          |   |          |  |
| Background/rationale | 2        | Explain the scientific background and rationale for the investigation being reported<br>State specific objectives, including any prespecified hypotheses  | 1-2      | Scientific rationale includes increasing HF burden, LBBB-related ventricular dyssynchrony, limitations of conventional CRT and need to compare pharmacological regimens after LBBaP. |
| Objectives           |          |   | 3        | 1-2  |
| Methods              |          |   |          |  |
| Study design         | 4        | Present key elements of study design early in the paper   | 2        | “This retrospective observational cohort study was conducted at a single tertiary medical center.”   |
| Setting              | 5        | Describe the setting, locations, and relevant dates, including periods of recruitment, exposure, follow-up, and data collection   | 2        | Patients were enrolled between January 2022 and December 2023 at a single tertiary center.   |
| Participants         | 6        | (a) <i>Cohort study</i> —Give the eligibility criteria, and the sources and methods of selection of participants. Describe methods of follow-up<br><i>Case-control study</i> —Give the eligibility criteria, and the sources and methods of case ascertainment and control selection. Give the rationale for the choice of cases and controls | 2        | Detailed eligibility criteria, exclusion criteria and follow-up procedures are provided.   |

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|                              |    | <i>Cross-sectional study</i> —Give the eligibility criteria, and the sources and methods of selection of participants  |   |  |
|                              |    | (b) <i>Cohort study</i> —For matched studies, give matching criteria and number of exposed and unexposed<br><i>Case-control study</i> —For matched studies, give matching criteria and the number of controls per case | - | Not applicable (non-matched cohort study)  |
| Variables                    | 7  | Clearly define all outcomes, exposures, predictors, potential confounders, and effect modifiers. Give diagnostic criteria, if applicable   | 2 | Primary and secondary outcomes included QRS duration, cardiac function parameters, biomarkers and MACE.          |
| Data sources/<br>measurement | 8* | For each variable of interest, give sources of data and details of methods of assessment (measurement). Describe comparability of assessment methods if there is more than one group                                   | 2 | ECG, echocardiography and laboratory measurements were used.   |
| Bias                         | 9  | Describe any efforts to address potential sources of bias  | 2 | Potential bias from retrospective design, single-center setting and confounding was acknowledged in limitations. |
| Study size                   | 10 | Explain how the study size was arrived at  | 2 | A total of 106 consecutive eligible patients were included.  |

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| Quantitative variables | 11  | Explain how quantitative variables were handled in the analyses. If applicable, describe which groupings were chosen and why  | 2      | Continuous variables were analyzed as mean $\pm$ SD; categorical variables as frequencies and percentages.      |
| Statistical methods    | 12  | (a) Describe all statistical methods, including those used to control for confounding   | 2      | Independent t-tests, paired t-tests, Mann-Whitney U tests, chi-square tests and Fisher's exact tests were used. |
|                        |     | (b) Describe any methods used to examine subgroups and interactions   | -      | No subgroup analyses performed.   |
|                        |     | (c) Explain how missing data were addressed   |        | Patients with incomplete key clinical data were excluded.   |
|                        |     | (d) <i>Cohort study</i> —If applicable, explain how loss to follow-up was addressed<br><i>Case-control study</i> —If applicable, explain how matching of cases and controls was addressed<br><i>Cross-sectional study</i> —If applicable, describe analytical methods taking account of sampling strategy | 2      | Loss to follow-up addressed through exclusion prior to final analysis.  |
|                        |     | (e) Describe any sensitivity analyses   | -      | No sensitivity analyses performed.  |
| <b>Results</b>         |     |   |        |   |
| Participants           | 13* | (a) Report numbers of individuals at each stage of study—eg numbers potentially eligible, examined for eligibility, confirmed eligible, included in the study, completing follow-up, and analysed   | 2-3    | Numbers at each study stage are summarized in Figure 2.   |
|                        |     | (b) Give reasons for non-participation at each stage  | 2-3    | Reasons for exclusion include unmet criteria, incomplete data and withdrawal.                                   |
|                        |     | (c) Consider use of a flow diagram  | Fig. 1 | Participant flow diagram provided in Figure 2.  |
| Descriptive data       | 14* | (a) Give characteristics of study participants (eg demographic, clinical, social) and information on exposures and potential confounders  | 3-4    | Baseline demographic and clinical characteristics are summarized in Table 1.                                    |
|                        |     | (b) Indicate number of participants with missing data for each variable of interest   | 2-4    | Incomplete data cases were excluded.  |
|                        |     | (c) <i>Cohort study</i> —Summarise follow-up time (eg, average and total amount)  | 5      | Follow-up duration was six months.  |
| Outcome data           | 15* | <i>Cohort study</i> —Report numbers of outcome events or summary measures over time   | 5      | Outcome measures included electrophysiological, echocardiographic, biomarker and MACE results.                  |
|                        |     | <i>Case-control study</i> —Report numbers in each exposure category, or summary measures of exposure  | -      |   |
|                        |     | <i>Cross-sectional study</i> —Report numbers of outcome events or summary measures  |        |   |

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| Main results | 16 | (a) Give unadjusted estimates and, if applicable, confounder-adjusted estimates and their precision (eg, 95% confidence interval). Make clear which confounders were adjusted for and why they were included | 5 | Group comparisons with statistical estimates and P values are reported. |
|              |    | (b) Report category boundaries when continuous variables were categorized  | 5 | NYHA functional classifications provided.                               |
|              |    | (c) If relevant, consider translating estimates of relative risk into absolute risk for a meaningful time period   | 5 | MACE incidence percentages reported.                                    |

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| Other analyses   | 17 | Report other analyses done—eg analyses of subgroups and interactions, and sensitivity analyses   | 5   | Safety and MACE analyses were additionally reported.            |
|                  |    | Discussion   |     |   |
| Key results      | 18 | Summarise key results with reference to study objectives   | 5-7 | Key findings summarized in Discussion opening paragraph.        |
| Limitations      | 19 | Discuss limitations of the study, taking into account sources of potential bias or imprecision. Discuss both direction and magnitude of any potential bias                 | 7   | Study limitations explicitly discussed.                         |
| Interpretation   | 20 | Give a cautious overall interpretation of results considering objectives, limitations, multiplicity of analyses, results from similar studies, and other relevant evidence | 5-7 | Results interpreted cautiously in context of prior studies.     |
| Generalisability | 21 | Discuss the generalisability (external validity) of the study results  | 5-7 | Generalizability limited by retrospective single-center design. |
|                  |    | Other information  |     |   |
| Funding          | 22 | Give the source of funding and the role of the funders for the present study and, if applicable, for the original study on which the present article is based              | 7   | “This research received no external funding.”                   |

\*Give information separately for cases and controls in case-control studies and, if applicable, for exposed and unexposed groups in cohort and cross-sectional studies.

**Note:** An Explanation and Elaboration article discusses each checklist item and gives methodological background and published examples of transparent reporting. The STROBE checklist is best used in conjunction with this article (freely available on the Web sites of PLoS Medicine at <http://www.plosmedicine.org/>, Annals of Internal Medicine at <http://www.annals.org/>, and Epidemiology at <http://www.epidem.com/>). Information on the STROBE Initiative is available at [www.strobe-statement.org](http://www.strobe-statement.org).