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| **Item to be reported** | | **Page no.** |
| **INTRODUCTION** | |  |
| 1 | State the marker examined, the study objectives, and any pre-specified hypotheses. | Introduction – para 2 and 5 (Page 6 & 7) |
| **MATERIALS AND METHODS** | |  |
| *Patients* | |  |
| 2 | Describe the characteristics (e.g., disease stage or co-morbidities) of the study patients, including their source and inclusion and exclusion criteria. | Methods – Study population section (Page 8) |
| 3 | Describe treatments received and how chosen (e.g., randomized or rule-based). |  |
| *Specimen characteristics* | |  |
| 4 | Describe type of biological material used (including control samples) and methods of preservation and storage. | Methods – Study population section – para 1 (Page 8) |
| *Assay methods* | |  |
| 5 | Specify the assay method used and provide (or reference) a detailed protocol, including specific reagents or kits used, quality control procedures, reproducibility assessments, quantitation methods, and scoring and reporting protocols. Specify whether and how assays were performed blinded to the study endpoint. | Methods – Immunohistochemistry assays and evaluation of ER/PgR expression (Page 9) |
| *Study design* | |  |
| 6 | State the method of case selection, including whether prospective or retrospective and whether stratification or matching (e.g., by stage of disease or age) was used. Specify the time period from which cases were taken, the end of the follow-up period, and the median follow-up time. | Methods – Study population section (Page 8) – study design & case-control matching (Pages 8 & 9) and Supplementary material (Page S3) |
| 7 | Precisely define all clinical endpoints examined. | Methods - Statistical analysis section (Page 10) |
| 8 | List all candidate variables initially examined or considered for inclusion in models. | Methods - Clinico-pathological variables section (Page 9) |
| 9 | Give rationale for sample size; if the study was designed to detect a specified effect size, give the target power and effect size. | Methods – Study design section (Page 8) |
| *Statistical analysis methods* | |  |
| 10 | Specify all statistical methods, including details of any variable selection procedures and other model-building issues, how model assumptions were verified, and how missing data were handled. | Methods – Clinico-pathological variables and Statistical analysis section (Pages 9 & 10) |
| 11 | Clarify how marker values were handled in the analyses; if relevant, describe methods used for cutpoint determination. | Methods – Immunohistochemistry assays and evaluation of ER/PgR expression (Page 9) |
| **RESULTS** | |  |
| *Data* | |  |
| 12 | Describe the flow of patients through the study, including the number of patients included in each stage of the analysis (a diagram may be helpful) and reasons for dropout. Specifically, both overall and for each subgroup extensively examined report the numbers of patients and the number of events. | Methods – Study population section (Page 8)  Table 1 (Page 24)  Supplementary Figure S1  Supplementary table S1 (Page S4) |
| 13 | Report distributions of basic demographic characteristics (at least age and sex), standard (disease-specific) prognostic variables, and tumor marker, including numbers of missing values. | Results - para 1 (Page 11), Table 1 (Page 24) and Supplementary Table S1 (Page S4) |
| *Analysis and presentation* | |  |
| 14 | Show the relation of the marker to standard prognostic variables. | Results - para 1 and 2 (Page 11) and Supplementary Table S3 (Page S5) |
| 15 | Present univariable analyses showing the relation between the marker and outcome, with the estimated effect (e.g., hazard ratio and survival probability). Preferably provide similar analyses for all other variables being analyzed. For the effect of a tumor marker on a time-to-event outcome, a Kaplan-Meier plot is recommended. | Results - para 3 (Pages 11 & 12), Table 2 (Page 25), Table 3 (Page 26) and Table 4 (Page 27), Figure 1 (Page 28), Supplementary Table S4 (Page S5) |
| 16 | For key multivariable analyses, report estimated effects (e.g., hazard ratio) with confidence intervals for the marker and, at least for the final model, all other variables in the model. | Results - para 4 (Page 12), Table 4 (Page 27), Supplementary Table S4 (Page S5) |
| 17 | Among reported results, provide estimated effects with confidence intervals from an analysis in which the marker and standard prognostic variables are included, regardless of their statistical significance. | Results - para 4 (Page 12), Table 4 (Page 27), Supplementary Table S4 (Page S5) |
| 18 | If done, report results of further investigations, such as checking assumptions, sensitivity analyses, and internal validation. | Supplementary Tables S1 (Page S4), S4 (Page S5) |
| **DISCUSSION** | |  |
| 19 | Interpret the results in the context of the pre-specified hypotheses and other relevant studies; include a discussion of limitations of the study. | Discussion para 1, 2 and 7 (Pages 14 & 15)  Limitations – para 9 (Pages 16 & 17) |
| 20 | Discuss implications for future research and clinical value. | Discussion para 3 to 6 (Pages 14 & 15) and conclusions para (Pages 17 & 18) |