The REMARK checklist

	Item to be reported	Reported on Page Number/Line Number	Reported on Section/Paragraph
INTRODUCTION			
1	State the marker examined, the study objectives, and any pre-specified hypotheses.	Page 2/Lines 66-69	Introduction/4th paragraph
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.	Page 2/Lines 74-80 Page 2/Lines 93-94 Page 3/Lines 95 Supplementary material: Figure 1	Patient selection/1st paragraph Cachexia assessment/2nd paragraph Supplementary figure 1
3	Describe treatments received and how chosen (e.g., randomized or rule-based).	Page 2/Lines 74-75	Patient selection/1st paragraph
Specimen characteristics			
4	Describe type of biological material used (including control samples) and methods of preservation and storage.	N/A	No biological material was used to test our hypothesis
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.	N/A	No biological material was used to test our hypothesis
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.	Page 2/Line 74-80 Page 2/Line 84-94 Page 3/Line 95-101 Page 3/Line 105-119 Page 4/Line 165 Supplementary material: figure 1	Patient selection/1st paragraph Cachexia assessment/1st,2nd and 3rd paragraph Data collection/1st,2nd and 3rd paragraph Patient characteristics/1st paragraph Supplementary figure 1
7	Precisely define all clinical endpoints examined.	Page 3/Line 122-132	Outcome assessment/1st and 2nd paragraph
8	List all candidate variables initially examined or considered for inclusion in models.	Page 2/Line 84-94 Page 3/Line 95-101 Page 3/Line 105-119	Cachexia assessment/1st, 2nd and 3rd paragraph Data collection/1st, 2nd and 3rd paragraph
9	Give rationale for sample size; if the study was designed to detect a specified effect size, give the target power and effect size.	Page 4/Line 156-159	Statistical analysis/5th paragraph

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.	Page 3/Line 135-143 Page 4/Line 144-159	Statistical analysis/1st,2nd,3rd , 4th and 5th paragraph
11	Clarify how marker values were handled in the analyses; if relevant, describe methods used for cutpoint determination.	Page 2/Line 84-94 Page 3/95-101 Page 3/105-119 Page 3/122-132	Cachexia assessment/1st, 2nd and 3rd paragraph Data collection/1st, 2nd and 3rd paragraph Outcome assessment/1st and 2nd paragraph

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.	Page 2/Line 74-80 Page 2/Line 93-94 Page 3/Line 95-97	Patient selection/1st paragraph Cachexia assessment/2nd paragraph

		Supplementary material: Figure 1	Supplementary material: Figure 1
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.	Page 4/Line 165-178	Patient characteristics/1st ,2nd ,3rd and 4th paragraph
Analysis and presentation			
14	Show the relation of the marker to standard prognostic variables.	Page 4/Line 181-192 Page 5/Line 193-195 Page 5/Line 198-210 Page 5/Line 214-224 Figures 2,3,4,5	Effect of the studied variables on response outcomes/1st, 2nd and 3rd paragraph Effect of the studied variables on survival outcomes/1st,2nd, 3rd and 4th paragraph Univariate and multivariate analysis/1st, 2nd and 3rd paragraph
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.	Page 5/Lines 214-224 Table 2	Univariate and multivariate analysis/1st, 2nd and 3rd paragraph Table 2
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.	Page 5/Lines 214-224 Table 2	Univariate and multivariate analysis/1st, 2nd and 3rd paragraph Table 2
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.	Table 2	Table 2
18	If done, report results of further investigations, such as checking assumptions, sensitivity analyses, and internal validation.	N/A	N/A
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.	Page 5/Line 227-240 Page 6/Line 241-269	Discussion/1st,2nd,3rd,4th,5th and 6th paragraph
20	Discuss implications for future research and clinical value.	Page 6/Line 273-276	Conclusion/1st paragraph

From: McShane LM, Altman DG, Sauerbrei W, Taube SE, Gion M, Clark GM: Reporting recommendations for tumor marker prognostic studies (REMARK). J Natl Cancer Inst 2005; 97: 1180-1184.

Article Information: https://dx.doi.org/10.21037/tlcr-21-460

*As the checklist was provided upon initial submission, the page number/line number reported may be changed due to copyediting and may not be referable in the published version. In this case, the section/paragraph may be used as an alternative reference.