STROBE Statement—Checklist of items that should be included in reports of case-control studies

<table>
<thead>
<tr>
<th>Item No</th>
<th>Recommendation</th>
<th>Reported on Page No/Line No</th>
<th>Reported on Section/Paragraph</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Title and abstract</strong></td>
<td>1 (a) Indicate the study’s design with a commonly used term in the title or the abstract</td>
<td>Page 3/line 2-13</td>
<td>Abstract/Para 1-2</td>
</tr>
<tr>
<td></td>
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<td>Page 3/line 14-16</td>
<td>Abstract/Para 3-4</td>
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<tr>
<td></td>
<td>(b) Provide in the abstract an informative and balanced summary of what was done and what was found</td>
<td>Page 4/line 1-4</td>
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<tr>
<td><strong>Introduction</strong></td>
<td></td>
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<tr>
<td>Background/rationale</td>
<td>2 Explain the scientific background and rationale for the investigation being reported</td>
<td>Page 5/line 3-16</td>
<td>Introduction/Para 1-3</td>
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<tr>
<td></td>
<td>Page 6/line 1</td>
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<tr>
<td>Objectives</td>
<td>3 State specific objectives, including any prespecified hypotheses</td>
<td>Page 5/line 15-16</td>
<td>Introduction/Para 3</td>
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<tr>
<td></td>
<td>Page 6/line 1</td>
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<tr>
<td><strong>Methods</strong></td>
<td></td>
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<tr>
<td>Study design</td>
<td>4 Present key elements of study design early in the paper</td>
<td>Page 6/line 4-5</td>
<td>Methods/Para 1</td>
</tr>
<tr>
<td>Setting</td>
<td>5 Describe the setting, locations, and relevant dates, including periods of recruitment, exposure, follow-up, and data collection</td>
<td>Page 6/line 4-9</td>
<td>Methods/Para 1</td>
</tr>
<tr>
<td>Participants</td>
<td>6 (a) 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</td>
<td>Page 6/line 4-9</td>
<td>Methods/Para 1</td>
</tr>
<tr>
<td></td>
<td>(b) For matched studies, give matching criteria and the number of controls per case</td>
<td>Page 6/line 4-9</td>
<td>Methods/Para 1</td>
</tr>
<tr>
<td>Variables</td>
<td>7 Clearly define all outcomes, exposures, predictors, potential confounders, and effect modifiers. Give diagnostic criteria, if applicable</td>
<td>Page 7/line 9-16</td>
<td>Methods/Para 3-4</td>
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<td>Page 8/line 1-16</td>
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<tr>
<td>Data sources/measurement</td>
<td>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</td>
<td>Page 7/line 9-16</td>
<td>Methods/Para 3</td>
</tr>
<tr>
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<td>Page 8/line 1-2</td>
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<tr>
<td>Bias</td>
<td>9 Describe any efforts to address potential sources of bias</td>
<td>Page 6/line 5-6</td>
<td>Methods/Para 1</td>
</tr>
<tr>
<td>Study size</td>
<td>10 Explain how the study size was arrived at</td>
<td>Page 6/line 4-9</td>
<td>Methods/Para 1</td>
</tr>
<tr>
<td>Quantitative variables</td>
<td>11 Explain how quantitative variables were handled in the analyses. If applicable, describe which groupings were chosen and why</td>
<td>Page 9/line 1-5</td>
<td>Methods/Para 5</td>
</tr>
</tbody>
</table>
**Statistical methods** 12

(a) Describe all statistical methods, including those used to control for confounding

Page 9/line 1-5  Methods/Para 5

(b) Describe any methods used to examine subgroups and interactions

Page 9/line 1-5  Methods/Para 5

(c) Explain how missing data were addressed

Page 9/line 1-5  Methods/Para 5

(d) If applicable, explain how matching of cases and controls was addressed

Page 9/line 1-5  Methods/Para 5

(e) Describe any sensitivity analyses

Page 9/line 1-5  Methods/Para 5

**Results**

**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

N/A  N/A

(b) Give reasons for non-participation at each stage

N/A  N/A

(c) Consider use of a flow diagram

N/A  N/A

**Descriptive data** 14*

(a) Give characteristics of study participants (eg demographic, clinical, social) and information on exposures and potential confounders

N/A  N/A

(b) Indicate number of participants with missing data for each variable of interest

N/A  N/A

**Outcome data** 15*

Report numbers in each exposure category, or summary measures of exposure

Page 9/line 8-15  Results/Para 1-2

**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

Page 9/line 9-15  Results/Para 2

(b) Report category boundaries when continuous variables were categorized

Page 9/line 9-15  Results/Para 2

(c) If relevant, consider translating estimates of relative risk into absolute risk for a meaningful time period

N/A  N/A

**Other analyses** 17

Report other analyses done—eg analyses of subgroups and interactions, and sensitivity analyses

N/A  N/A

**Discussion**

**Key results** 18

Summarise key results with reference to study objectives

Page 9/line 16
Page 10/line 1-4  Discussion/Para 1
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 Page 14/line 2-11 Discussion/Para 9

Interpretation 20 Give a cautious overall interpretation of results considering objectives, limitations, multiplicity of analyses, results from similar studies, and other relevant evidence Page 10/line 6-16 Page 11/line 1-16 Page 12/line 1-16 Page 13/line 1-16 Discussion/Para 2-7

Generalisability 21 Discuss the generalisability (external validity) of the study results Page 13/line 15-16 Page 14/line 1 Discussion/Para 10

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 Page 15/line 5 Acknowledgement

*Give information separately for cases and controls.


The reasons for not applicable items:

13 and 14. Participants of this study were consecutive patients (50 males and 19 females) who were treated with single level CBT-PLIF from October 2011 to December 2016 except for trauma, tumor, infection, and congenital disease. Because those details were written in “Methods”, we didn’t mention in “Results”.

16(c). Because main results of this study were obtained by Multiple logistic regression analysis, we didn’t consider the content of 16(C).

17. We didn’t try other analyses for making results of this study clearly.

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*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.