

PEER REVIEW HISTORY

BMJ Open publishes all reviews undertaken for accepted manuscripts. Reviewers are asked to complete a checklist review form (<http://bmjopen.bmj.com/site/about/resources/checklist.pdf>) and are provided with free text boxes to elaborate on their assessment. These free text comments are reproduced below.

ARTICLE DETAILS

TITLE (PROVISIONAL)	A systematic review and meta-analysis of prognostic factors for idiopathic inflammatory myopathy-associated interstitial lung disease
AUTHORS	Kamiya, Hiroyuki; Panlaqui, Ogee; Izumi, Shinyu; Sozu, Takashi

VERSION 1 – REVIEW

REVIEWER	Claudio Pedone Università Campus Bio-Medico di Roma. Rome, Italy
REVIEW RETURNED	08-Jun-2018

GENERAL COMMENTS	<p>As stated in the title, this is a metaanalysis of studies on interstitial lung disease (ILD) complicated with idiopathic inflammatory myopathy (IIM). In the text, however, there is quite a bit of confusion because the authors in some places in text refer to IIM complicated with ILD (which should be the case), in others to ILD complicated with IIM.</p> <p>The authors used standard methods to perform the meta-analysis, and from a methodological point of view there are no issue as far as I can see. A major problem is that the trials included are of poor quality and the risk of bias is substantial. Thus, the conclusion of the meta-analysis are questionable and should be reported with great caution.</p>
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REVIEWER	Prof. Dr. Ersin Ogus Baskent University, Faculty of Medicine, Department of Biostatistics, Ankara/TURKEY
REVIEW RETURNED	13-Jun-2018

GENERAL COMMENTS	<p>This study was organized as a successful study. All necessary steps for Meta Analysis have been successfully applied. Thanks for the authors.</p> <p>However, a small but significant correction is required. After the page 33 up to the end, normally there are many p values (significancy), all of them must be written by lower case "p"s, not capital letter "P" 's, because capital letter P's have different meaning. Please replace all capital P's with lower case p's. After this revision, study can accept.</p>
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REVIEWER	Dr Chris Atkins Norwich Medical School, University of East Anglia, Norwich, Norfolk, UK, NR4 7UY
REVIEW RETURNED	17-Jul-2018

<p>GENERAL COMMENTS</p>	<p>The paper presents a systematic review and meta-analysis of data relating to prognostics factors for ILDs complicating IIMs, attempting to clarify those associated with a worse prognosis and the strength of these effects. It is a well-conducted review, with appropriate search methodology and choice of search terms (described in the supplemental file). The findings appear to be in keeping with what we know about these conditions. Explanation of the strengths and weaknesses present a realistic picture of what the study is able to achieve. I think this article is suitable for publication but suggest a few minor changes:</p> <p>1) Clarification about whether data was extracted from one or multiple studies when a single group had published multiple papers (most likely using the same patient data for this). On page 11 it is mentioned that the “largest sample size was prioritized among multiple studies conducted by the same research group”. This suggests that only the largest samples were used but doesn’t explicitly say that the other studies were excluded and only the largest study included. This should be explicitly stated if this is the case, or justification for any other course of action stated in the methods section.</p> <p>2) Methods – you state that some changes to the previously published protocol occurred due to practical reasons; please specify what these changes were and why they occurred.</p> <p>3) There are occasions where the quality of English is not quite of the standard for publication. Examples include:</p> <p>a. The strengths and limitations do not read well as stand-alone sentences, e.g. “A systematic review and meta-analysis of primary studies of any type of design to address a clinical question of prognosis” does not specify why this is a strength of the paper. Perhaps “This systematic review and meta-analysis included primary research of multiple types to enable analysis of a larger cohort of patients with IIM-ILDs that has previously been possible in single studies due to disease rarity” would be a better explanation of the strength.</p> <p>b. Page 13, multivariate analysis: when discussing PaO2 in univariate and multivariate analyses it is unclear what is meant by “the authors failed to conduct multivariate analysis.” I suspect you mean “were unable to perform an analysis” as “failed to conduct” suggests that it was forgotten by accident rather than not performed by choice.</p> <p>c. Page 17, line 8 of discussion. “The old age generally causes more comorbidities and less tolerability, which will deteriorate the progress of the disease.” Whilst I can see the point the authors are trying to make relating to age leading to frailty and lack of physiological reserve, this should be stated more clearly.</p> <p>4) Please move the references to within the sentences to which they relate (i.e. reference [1] is on the wrong side of the full-stop, making it unclear if it relates to the previous sentence or the next one.</p> <p>Overall, I think this is important evidence, with the caveat that it relates more to Asian populations than western/Caucasian populations (due to the relative difference in disease frequency between populations), and warrants publication after minor changes have been made.</p>
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VERSION 1 – AUTHOR RESPONSE

Reply to Reviewer1

Following the comments, the phrase “ILD complicated with IIM” was changed into “IIM-associated ILD” in the whole manuscript to avoid confusion. In addition, following the advice, the conclusion was reported with caution.

Reply to Reviewer2

Following the comments, all capital letter “P” of p values was re-written by lower case.

Reply to Reviewer3

- (1) Following the comments, we clarified our method of dealing with the case where the same research group conducts multiple studies (Page 10, the second sentence). The data of each prognostic factor was extracted from the study with the largest sample size. For example, when the data of factor A comes from study X, that of factor B may possibly be derived from study Y (both studies are conducted by the same group) due to missing and/or different factors of interest.
- (2) Following the comments, we specified the revisions to the protocol (Page 6-7).
- (3) Following the comments, we asked a native English speaker involving medical research in our institution to edit English in this manuscript. All the examples that were pointed out were re-written (Page 4, section of “strengths and limitations” and Page 20, the second paragraph in “Discussion”) as well as other sections of the manuscript to clarify the meaning of sentences.
- (4) Thank you for your advice about the position of references. It was placed outside a sentence (after comma or period) following the guideline of the journal.

VERSION 2 – REVIEW

REVIEWER	Claudio Pedone Università Campus Bio-Medico di Roma, Rome, Italy
REVIEW RETURNED	03-Sep-2018
GENERAL COMMENTS	The authors have satisfactorily addressed my comments, I have no further queries.
REVIEWER	Dr C Atkins Norwich Medical School, University of East Anglia, Norwich, Norfolk, United Kingdom, NR4 7UY
REVIEW RETURNED	31-Aug-2018
GENERAL COMMENTS	Thank you for making these amendments. The paper is much clearer in revised form.