

Appendix I. Rejected Abstract-Article

Abstracts	
<p>Periodontitis and abdominal aortic aneurysms: a random association or a pathogenetic link?</p> <p>Paraskevas KI1, Mikhailidis DP, Giannoukas AD.</p> <p>Int Angiol. 2009 Dec; 28(6):431-3</p>	<p>review</p>
<p>Effect of toll-like receptor in periodontal bacteria-accelerated abdominal aortic aneurysms.</p> <p>Nakagomi A.</p> <p>Circ J. 2013; 77(6):1414-5. Epub 2013 May 9.</p>	<p>editorial</p>
<p>A periodontal pathogen accelerates the progression of abdominal aortic aneurysm via toll-like receptor-2 signaling</p> <p>Aoyama N., Suzuki J.-I., Ogawa M., Watanabe R., Izumi Y., Hirata Y., Nagai R., Isobe M.</p> <p>Circulation 2011 124:21 SUPPL. 1</p>	<p>Meeting abstract, no full text available.</p> <p>After reading all the full text selection, it appears that these meeting abstract of 2011 led to another article in 2013 (Circulation Journal 2013 77:6 (1565-1573))that is included in this systematic review</p>
<p>Full texts</p> <p>Quantification of periodontal pathogens in vascular, blood, and subgingival samples from patients with peripheral arterial disease or abdominal aortic aneurysms.</p> <p>Figuerola E1, Lindahl C, Marín MJ, Renvert S, Herrera D, Ohlsson O, Wetterling T, Sanz M.</p> <p>J Periodontol. 2014 Sep; 85(9):1182-93. doi:</p>	<p>Not specific to AAA</p> <p>Analyses were made for all heart diseases (carotid, peripheral arteries) and the conclusions were made for all disease and nonspecific for AAA.</p>

10.1902/jop.2014.130604. Epub 2014 Feb 6.	

Appendix II. Amstar quality assessment for " Can periodontitis influence the progression of abdominal aortic aneurysm? A systematic review

FINAL SCORE: 10/11

1. Was an 'a priori' design provided?

The research question and inclusion criteria should be established before the conduct of the review.

Note: Need to refer to a protocol, ethics approval, or pre-determined/a priori published research objectives to score a "yes."

- ☒ Yes
☐ No
☐ Can't answer
☐ Not applicable

2. Was there duplicate study selection and data extraction?

There should be at least two independent data extractors and a consensus procedure for disagreements should be in place.

Note: 2 people do study selection, 2 people do data extraction, consensus process or one person checks the other's work.

- ☒ Yes
☐ No
☐ Can't answer
☐ Not applicable

3. Was a comprehensive literature search performed?

At least two electronic sources should be searched. The report must include years and databases used (e.g., Central, EMBASE, and MEDLINE). Key words and/or MESH terms must be stated and where feasible the search strategy should be provided. All searches should be supplemented by consulting current contents, reviews, textbooks, specialized registers, or experts in the particular field of study, and by reviewing the references in the studies found.

Note: If at least 2 sources + one supplementary strategy used, select "yes" (Cochrane register/Central counts as 2 sources; a grey literature search counts as supplementary).

- ☒ Yes
☐ No
☐ Can't answer
☐ Not applicable

4. Was the status of publication (i.e. grey literature) used as an inclusion criterion?

- ☒ Yes

The authors should state that they searched for reports regardless of their publication type. The authors should state whether or not they excluded any reports (from the systematic review), based on their publication status, language etc.

- ☐ No
- ☐ Can't answer
- ☐ Not applicable

Note: If review indicates that there was a search for "grey literature" or "unpublished literature," indicate "yes." SINGLE database, dissertations, conference proceedings, and trial registries are all considered grey for this purpose. If searching a source that contains both grey and non-grey, must specify that they were searching for grey/unpublished lit.

5. Was a list of studies (included and excluded) provided?

A list of included and excluded studies should be provided.

Note: Acceptable if the excluded studies are referenced. If there is an electronic link to the list but the link is dead, select "no."

- ☒ Yes
 - ☐ No
 - ☐ Can't answer
 - ☐ Not applicable
-

6. Were the characteristics of the included studies provided?

In an aggregated form such as a table, data from the original studies should be provided on the participants, interventions and outcomes. The ranges of characteristics in all the studies analyzed e.g., age, race, sex, relevant socioeconomic data, disease status, duration, severity, or other diseases should be reported.

Note: Acceptable if not in table format as long as they are described as above.

- ☒ Yes
 - ☐ No
 - ☐ Can't answer
 - ☐ Not applicable
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7. Was the scientific quality of the included studies assessed and documented?

'A priori' methods of assessment should be provided (e.g., for effectiveness studies if the author(s) chose to include only randomized, double-blind, placebo controlled studies, or allocation concealment as inclusion criteria); for other types of studies alternative items will be relevant.

Note: Can include use of a quality scoring tool or checklist, e.g., Jadad scale, risk of bias, sensitivity analysis, etc., or a description of quality items, with some kind of result for EACH study ("low" or "high" is fine, as long as it is clear which studies scored "low" and which scored "high"; a summary score/range for all studies is not acceptable).

- ☒ Yes
- ☐ No
- ☐ Can't answer
- ☐ Not applicable

8. Was the scientific quality of the included studies used appropriately in formulating conclusions?

The results of the methodological rigor and scientific quality should be considered in the analysis and the conclusions of the review, and explicitly stated in formulating recommendations.

Note: Might say something such as "the results should be interpreted with caution due to poor quality of included studies." Cannot score "yes" for this question if scored "no" for question 7.

- ☒ Yes
 - ☐ No
 - ☐ Can't answer
 - ☐ Not applicable
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9. Were the methods used to combine the findings of studies appropriate?

For the pooled results, a test should be done to ensure the studies were combinable, to assess their homogeneity (i.e., Chi-squared test for homogeneity, I²). If heterogeneity exists a random effects model should be used and/or the clinical appropriateness of combining should be taken into consideration (i.e., is it sensible to combine?).

Note: Indicate "yes" if they mention or describe heterogeneity, i.e., if they explain that they cannot pool because of heterogeneity/variability between interventions.

- ☒ Yes
 - ☐ No
 - ☐ Can't answer
 - ☐ Not applicable
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10. Was the likelihood of publication bias assessed?

An assessment of publication bias should include a combination of graphical aids (e.g., funnel plot, other available tests) and/or statistical tests (e.g., Egger regression test, Hedges-Olken).

Note: If no test values or funnel plot included, score "no". Score "yes" if mentions that publication bias could not be assessed because there were fewer than 10 included studies.

- ☐ Yes
 - ☒ No
 - ☐ Can't answer
 - ☐ Not applicable
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11. Was the conflict of interest included?

Potential sources of support should be clearly acknowledged in both the systematic review and the included studies.

Note: To get a "yes," must indicate source of funding or support for the systematic review AND for each of the included studies.

- ☒ Yes
 - ☐ No
 - ☐ Can't answer
 - ☐ Not applicable
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Appendix III. SYRCLE's animal studies: Risk of bias

	Aoyama et al. 2011	Delbosc et al. 2011	Aoyama et al. 2013
(1) Was the allocation sequence adequately generated and applied?	yes	yes	yes
(2) Were the groups similar at baseline or were they adjusted for confounders in the analysis?			
-Was the distribution of relevant baseline characteristics balanced for the intervention and control groups?	Yes	Yes	Yes
-If relevant, did the investigators adequately adjust for unequal distribution of some relevant baseline characteristics in the analysis?	Yes	Yes	Yes
-Was the timing of disease induction adequate?			

	yes	yes	yes
(3) Was the allocation to the different groups adequately concealed during?	Unclear	Unclear	Unclear
<p>(4) Were the animals randomly housed during the experiment?</p> <p>- Did the authors randomly place the cages or animals within the animal room/facility?</p> <p>-Is it unlikely that the outcome or the outcome measurement was influenced by not randomly housing the animals?</p>	<p>Unclear</p> <p>Unclear</p>	<p>Unclear</p> <p>Unclear</p>	<p>Unclear</p> <p>Unclear</p>
(5) Were the caregivers and/or investigators blinded from knowledge of which intervention each animal received during the experiment?	no	no	no
6) Were animals selected at random for outcome assessment?	Unclear	Unclear	Unclear

7) Was the outcome assessor blinded?			
-Was blinding of the outcome assessor ensured, and was it unlikely that blinding could have been broken?	Unclear	Unclear	Unclear
-Was the outcome assessor not blinded, but do review authors judge that the outcome is not likely to be influenced by lack of blinding?	Unclear	Unclear	Unclear
(8) Were incomplete outcome data adequately addressed?			
-Were all animals included in the analysis?	Yes	Yes	No
-Were the reasons for missing outcome data unlikely to be related to true outcome (e.g., technical failure)?	Unclear	Unclear	No
-Is missing outcome data balanced in numbers across intervention groups, with similar			

<p>reasons for missing data across groups?</p> <p>-Is missing outcome data imputed using appropriate methods?</p>	<p>Unclear</p> <p>Unclear</p>	<p>Unclear</p> <p>Unclear</p>	<p>No</p> <p>no</p>
<p>(9) Are reports of the study free of selective outcome reporting?</p> <p>- Was the study protocol available and were all of the study's pre-specified primary and secondary outcomes reported in the current manuscript?</p>	<p>yes</p>	<p>yes</p>	<p>yes</p>
<p>(10) Was the study apparently free of other problems that could result in high risk of bias? (*)</p> <p>-Was the study free of contamination (pooling</p>			

drugs)?	Yes	Yes	yes
- Was the study free of inappropriate influence of funders?			
- Was the study free of unit of analysis errors?	Yes	Yes	Yes
- Were design-specific risks of bias absent?			
- Were new animals added to the control and experimental groups to replace dropouts from the original population?	Unclear	Unclear	Unclear
	Yes	No	Yes
	Unclear	Unclear	Unclear

Appendix IV. OHAT quality assessment: Human studies

Categories			
1- Definitely low risk of bias, 2-Probably low risk of bias, 3- Probably high risk of bias, 4- Definitely high risk of bias			
	<i>Kurihara et al. 2004</i>	<i>Delbosc et al.2011</i>	<i>Suzuki et al. 2014</i>
	Case series	Human controlled trial	Human controlled trial
Was administered dose or exposure level adequately randomised?	4 (one group)	3	3
Was allocation to study groups adequately concealed?	4 (one group)	3	3
Did selection of study participants result in appropriate comparison groups?	1	1	1
Did the study design or analysis account for important confounding and modifying variables?	4	3	4
Were experimental conditions identical across study groups?	1	1	1
Were the research personnel and human subjects blinded to the study group during the study?	4	4	4
Was outcome data complete without attrition or exclusion from analysis?	1	1	1

Can we be confident in the exposure characterisation?	1	1	1
Can we be confident in the outcome assessment?	1	1	1
Were all measured outcomes reported?	1	1	1
Were there no other potential threats to internal validity (e.g., statistical methods were appropriate and researchers adhered to the study protocol)?	2	1	1
-Were statistical methods appropriate?	2	1	1
- Did researchers adhere to the study protocol?	4	1	1
- Did the study design or analysis account for important confounding and modifying variables (including unintended co-exposures) in experimental studies?	1	1	1
	4	4	4