Reviewer's report

Title: Endoscopic treatments for Barrett's esophagus with high grade dysplasia: a systematic review of safety and effectiveness

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Reviewer: Rebecca C Fitzgerald

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Endoscopic treatments for Barrett's esophagus with high grade dysplasia: a systematic review of safety and effectiveness
D Menon et al.

Summary
The authors have compared endoscopic treatment modalities with oesophagectomy. Due to the poor quality and non-uniformity of reported data they were not able to perform a form meta-analysis.

Major compulsory revisions:
General comments:
The Inclusion and exclusion criteria are not well defined or robust enough. For example, although the aim was to examine HGD some of the studies cited include patients without dysplasia (e.g. refs 14, 87) or with early cancer included (e.g. ref 84). The endpoints appear to be 3 months for efficacy with very limited information. No efficacy data is given for oesophagectomy which is treated as a single entity. There is more data on safety but there are concerns that this may not be comprehensive. In light of these limitations there are concerns over whether the conclusions drawn are valid. More detail is given below.

Specific comments:
1) The title does not adequately reflect the study which compares endoscopic modalities with oesophagectomy.
2) Due to the paucity of published data and lack of randomised control trials other data sources may be required to get an accurate assessment of complications rates etc. Surgical data is audited and a registry is being kept by Barrx of HALO procedures and outcomes. Did the authors consider including these data sources?
3) In the introduction is would be useful for those not familiar with the subject to explain the rationale for combining EMR with ablative treatments.
4) In the results some data is given with 12 month follow-up and in some cases there is 5 year data available. It would be helpful if the tables could also include efficacy data on longer term f/up where available as 3 months is rather too short to draw meaningful conclusions. It also needs to be specified whether this was 3
months following multiple treatments or after the first treatment?

5) Whereas different endoscopic modalities are compared oesophagectomy is considered as a single entity although in fact there are a number of different approaches with pros and cons. Were the authors able to get comparative data on: Merendino, Transhiatal, Ivor Lewis and laparoscopic approaches?

6) Study aims to compare surgical vs endoscopic options - but the studies included in the endoscopic therapy included patients who had surgery e.g. ref 18 laser therapy followed by anti-reflux surgery, ref 97 and 104 RFA with fundoplication, ref 101 RFA followed immediately with oesophagectomy.

7) The authors need to be sure that interim analyses and final study outcomes are not counted as separate studies. E.g. ref 87 – patients included in study were part of multicentre MPEC trail and the main aim of this study was to look at endoscopic ultrasound appearances following MPEC.

8) There was a case of perforation following PDT stricture dilatation from ref 107 which ended with oesophagectomy – there is no mention of this by the authors who report 0% perforation in PDT.

9) The authors conclude that: “PDT appears less effective in achieving complete eradication of BE and HGD compared with other endoscopic treatments”. It is difficult to agree with this statement. PDT is the best studied. There are no robust head to head trails comparing all modalities apart from small RCT’s comparing PDT to APC mainly in non-dysplastic BE, only one study Ragunath et al looked at 2 HGD in their RCT.

10) No laser studies included which looked at HGD were included but there are two such studies.

11) APC eradication of BE: the authors give a range of 0 – 100%. It is not clear where the 0% was ascertained from.

12) RFA eradication of BE: the lower range of 21.9% seems rather low. Again this would depend on what the 3 month cut-off means. The lowest response rate reported in the literature is around 46%, but this is at 12 months follow up.

13) Table 1 – were any diagnostic criteria used for BE?

14) Tables: in general the tables are difficult to follow as the rows are not subdivided e.g. long list in table 6. For all tables an explanation should be given for how the data is presented e.g. mean or median, range, 95% CI – it is not clear what data is presented.

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:
'I declare that I have no competing interests'