

Peer Review File

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Reviewer A

The authors review the endoscopic managements for excessive central airway collapse comprehensively including new technologies such as thermoablative therapy and 3D engineered stent. The article itself is described well and seems to be helpful to whom it may concern. Therefore, the article should be acceptable to the journal.

In addition to that, there are several minor points which should be revised.

1. In the section of short-term stent trial, various advantages of uncovered self-expanding metallic airway stents (USEMAS) in comparison with silicone stents are described. However, I am a little skeptical about the advantages. I believe silicone stents are still the gold standard on the stent trial for ECAC. I would propose to include the fair comparison between silicone stents and USEMAS in the section. Also, please describe potential limitations of USEMAS such as few choices of stent shape.

Reply: Added.

Changes: Page 9, line 183-190, information added of one of our upcoming projects comparing the USEMAS with the silicone stents.

2. Regarding Argon Plasma Coagulation (APC), the output of APC is described with “Effects” in the manuscript. I think the “Effects” is not a universal description for the APC output. Please correct it with a universal description.

Reply: Modified. Effect is how it was described in both manuscripts cited, as well as described by the company, however we agreed and added power settings.

Changes: Added the effect or power setting.

3. YAP is an abbreviation of yttrium aluminium perovskite. Please describe it in the section of laser tracheobronchoplasty.

Reply: Modified

Changes: Added the full name of the procedure page 15, line 321.

4. Incorrect spelling; P8 line212, TBMthat, please insert space between TBM and that. Please correct.

Reply: Modified

Changes: Changes inserted line 239-page 11.

Reviewer B

The article is a broader review of TBM, although its title and introduction attempt to discuss endoscopic treatment for EDAC as well as TBM. I was anticipating reading a manuscript about endoscopic treatment but much of the manuscript is about evaluation and management of patients being considered for surgical TBP. The authors need to specify the indications for endoscopic treatment of TBM or EDAC and/or revise the title to "ECAC Evaluation and Management: Consideration for Endoscopic Treatment" and limit the discussion regarding review of surgical TBP. Perhaps stating simply that open surgical approaches to TBM repair have limited the treatment of this disease to a minority of patients and that endoscopic approaches might lead to more patients undergoing endoscopic treatments leading to symptomatic improvement. This would serve as a position statement as to why endoscopic treatments are important to look at.

Reply: We agreed however the mainstay of treatment for TBM is tracheobronchoplasty, that's the reason why is important to mention the therapeutic approach and the stent trial, and subsequently the endoscopic approaches available in the literature are described in the discussion section.

Changes: New phrase was added at the introduction, page 5, lines 110-111.

Thank you for the privilege to have reviewed the manuscript entitled, Endoscopic management of patients with Excessive Central Airway Collapse

The article title and abstract led me to anticipate, I would be reading an article specifically detailing endoscopic therapies for ECAC. Since therapy can be defined as a remediation of a health problem, the article should focus on long-term stents (including Three-dimensional (3D) printing technology in Tracheobronchomalacia), laser tracheobronchooplasty and finally the section on Bronchoscopic Argon Plasma Coagulation (APC) should be positioned in a discussion section as potential future therapy prior to conclusion section. ***On-line, there is a discussion section in the abstract, but in the article pdf downloaded, there is no discussion section.

Reply: All the endoscopic techniques are described in the discussion section.

Changes: No changes were made.

The abstract states, "In this review article we will discuss current and future endoscopic management of patients with ECAC". The article follows with introduction, indication for treatment, short term stent trial and then discusses endoscopic management with long-term stents. Either consider changing the title to "ECAC Evaluation and Management: Consideration for Endoscopic Treatment" or removing

Reply: We consider the evaluation of TBM is extremely important at the moment to understand the endoscopic modalities available for the treatment of the disease.

Changes: New title was added, page 1-line 2. However, this decision may remain in the journal due to the nature of the review article.

As the manuscript relates to endoscopic management, please clarify that the indication for intervention is the same for surgical as well as endoscopic management.

Reply: The indication for endoscopic treatment is when patients are not amenable to undergo surgery (constantly mention through the entire manuscript), because the corner stone of the treatment of TBM still the surgical approach.

Changes: No changes added

Line 62 Short-term stent trial through line 92 discusses short-term stents as a screening test for selection of patients to undergo TBP. Is this used to determine endoscopic treatment indication as well?

Reply: is not used to determine which patients will benefit for endoscopic treatment, especially because the mainstay of treatment is the surgical approach, however it may help. Further research is required to determine if that is completely accurate.

Changes: No Changes added

Lines 109-113: Surgical stabilization of the airway with TBP is still considered as the current treatment modality for patients with severe symptomatic ECAC following optimal medical management. Buitrago et al. (25) described a cohort of 161 patients that underwent TBP and found that the surgery improved quality of life, exercise capacity, as well as respiratory symptoms. However, they reported a 30- mortality of 1.2% and post-operative complications in 47% of patients.

I do not see the relevance of this paragraph to the topic section, Bronchoscopic APC. Please revise

Reply: It is essential to demonstrate that TPB is the current treatment modality for TBM, albeit a high morbidity and offered only to selective number of patients, which is the main reason why endoscopic modalities are becoming available.

Changes: No changes added

Lines 131-132: “Finally, when APC was used, independently of the effect (Effects 3-5-7)”
What is meant by Effects 3-5-7? – please define.

Reply: Power settings added (Effects)

Changes: Changes added through the entire manuscript

Minor - grammar

Line 66: Silicone stents has been historically used as a stent

Reply: Corrected

Changes: Page 8, line 161, “has” replaced by “have”

Line 200: This factors may decrease the typical st

Reply: Corrected

Changes: Page 11, line 227, “this” replaced by “these”

Reviewer C

Excessive Central Airway Collapse (ECAC) It is more common in expiration, but may also be present in inspiration.

In the subtitle: Bronchoscopic Argon Plasma Coagulation (APC): Perhaps more appropriate: Thermoablative techniques.

Reply: The current subtitle under APC is found is “Bronchoscopic Thermoablative Techniques”.

Changes: None

You Wrote: "CPAP titration under direct bronchoscopic visualization has been suggested to determine adequate CPAP pressure that will keep central airways patent. Unfortunately, this approach has not been well studied. CPAP of 7 to 10 cm H2O has been reported to be usually adequate”.

However, research is taking place that is in clinical.trial (ClinicalTrials.gov NCT03101059) with patients with Kuhn mounier syndrome and tracheobronchomalacia, in which the use of CPAP is being evaluated and pressure titration is being performed through bronchoscopy. The study protocol was published (doi: 10.2196/14786).

Reply: thank you for the comment, citation and information were added.

Changes: New phrase and citation added in page 7, lines 146-148.

The article reports that there is a human study is underway to evaluate bronchoscopic APC for patients with severe symptomatic EDAC, but it does not mention whether it is in clinical.trial or from where it obtained the information.

Reply: Currently there is no undergoing clinical trials available.

Changes: Phrase modified page 15, lines 312-314.

The abstract I received by email is different from the article. It mentions objectives, methods, discussion. He even mentions that there is a clinical trial being done (but he does not have this information in the article).