Author's response to reviews

Title: Treatment of Bronchial Airway Obstruction using a Rotating Tip Microdebrider. A Case Report.

Authors:
   Marcus P Kennedy (mpkenned@mdanderson.org)
   Rodolfo C Morice (rcmorice@mdanderson.org)
   Carlos A Jimenez (cajimenez@mdanderson.org)
   George A Eapen (gaeapen@mdanderson.org)

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Author's response to reviews: see over
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In regards to: MS: 1368690458122977

Treatment of Bronchial Airway Obstruction using a Rotating Tip Microdebrider.

The Editor
Journal of Cardiothoracic Surgery

Dear Editor,

We thank both reviewers for their excellent comments and suggestions which have strengthened this manuscript immensely.

We list to responses to each suggested revision:
Reviewer #1

Major Compulsory Revisions

We agree with the comment that this case report reinforces the use of multimodalities to treat central airway obstruction and have made some adjustments to the discussion and conclusion to highlight this:

“It is unclear presently what modality is superior for the treatment of central airway obstruction. Approaches depend on the lesion involved and operator preference and experience. We agree with other authors that microdebridement is useful when precision is essential; especially where high flow oxygen is required (1). A comparison of microdebrider bronchoscopy to thermal modalities to identify the best strategy for the management of central airway obstruction will be difficult, because of the difficulty of designing blinded randomized controlled trials in this critically ill population. In fact, this case highlights the benefit of using multiple modalities to treat central airway obstruction. The limitations of one modality (bleeding and damage of tissue for pathological inspection with microdebridement) can often be overcome by combining various therapeutic options. ..... In conclusion, this case report details the successful management of a distal left mainstem obstructing malignant lesion with a combination of therapies including a novel elongated microdebrider with rotating tip. Prospective trials are required to identify specific
indications for this therapy along with long-term outcomes in the management of central airway obstruction.”

*Minor Essential Revisions*

1. We have corrected the TMN classification at presentation (T3N2M1).
2. We have corrected “lower lower” changed it to “left lower”.
3. We have appropriately defined the CT abbreviation. “Axial Computed tomography (CT) angiogram of the chest also revealed multiple segmental and subsegmental pulmonary emboli”
4. We have changed “enoxaparin therapy” to “anticoagulation with low molecular weight heparin (enoxaparin)”: “Axial Computed tomography (CT) angiogram of the chest also revealed multiple segmental and subsegmental pulmonary emboli and the patient was admitted for anticoagulation with low molecular weight heparin (enoxaparin).”
Reviewer #2

Major Compulsory Revisions

1. We agree with this comment and removed the adjective tracheal from the title.

2. We have detailed the specificities of the microdebrider instrument:

“The devitalized tissue was then debulked using the Straightshot microdebrider with rotating tip (Figures 2b, 3) and the bevel of the rigid bronchoscope. The length of the microdebrider is 45 cm and outer diameter is 4 mm. The rotating tip is controlled by a fly-wheel on the hand-piece, which allows for better maneuverability and is angled at 12 degrees providing better visualization. The blade was serrated and an oscillator mode was used at 1000-1200 RPMs.”

3. We have added these modalities (brachytherapy and photodynamic therapy) to the list.

4. We have commented on bleeding and homeostasis during the procedure:

“Homeostasis was achieved using a combination of suction and APC with less than 20cc blood loss.”

5. We agree and have commented on these potential complications in paragraphs 2 and 3 of the discussion. These changes have been integrated with a discussion regarding the use of multiple modalities to treat airway obstruction.

“The rotating tip allows better maneuverability and precision, reducing the possibility of debriding normal tissue.
It is unclear presently what modality is superior for the treatment of central airway obstruction. Approaches depend on the lesion involved and operator preference and experience. We agree with other authors that microdebriderment is useful when precision is essential; especially where high flow oxygen is required (1). A comparison of microdebrider bronchoscopy to thermal modalities to identify the best strategy for the management of central airway obstruction will be difficult, because of the difficulty of designing blinded randomized controlled trials in this critically ill population. In fact, this case highlights the benefit of using multiple modalities to treat central airway obstruction. The limitations of one modality (bleeding and damage of tissue for pathological inspection with microdebriderment) can often be overcome by combining various therapeutic options.”

_Minor Essential Revisions_

1. We have used the term “The microdebrider” rather than “Microdebrider bronchoscopy”
2. We have corrected the TMN classification at presentation (T3N2M1).
3. We have corrected “lower lower” changed it to “left lower”.
4. A covered metal stent was used and we have made this adjustment.
Sincerely yours,

Marcus Kennedy