Reviewer's report

Title: Treatment of Bronchial Airway Obstruction using a Rotating Tip Tracheal Microdebrider

Version: 1 Date: 2 January 2007

Reviewer: Gaetane Michaud

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General
The article entitled “Treatment of Bronchial Airway Obstruction using a Rotating Tip Tracheal Microdebrider. Case Report” is a very interesting report of a new technology that may add to the therapeutic modalities available to the interventional bronchoscopist. This article will certainly be of interest to those who use these techniques to manage malignant airway obstruction.
The article could be strengthened with the addition of a more comprehensive description of the equipment and that which is necessary to operate the microdebrider.
Upon reading the case report, it is unclear to me the advantage the microdebrider added to APC with mechanical debulking. More emphasis should be placed on the added benefit of this technique to standard devitalization and mechanical debulking with the rigid bronchoscope.

Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)
With respect to the language, I would recommend avoiding abbreviations such as yr rather than year. There are also multiple run on sentences and the entire article is written in the passive voice.
1st sentence armamentarium is misspelled.
The microdebrider was described however no reference was made to the image that is included.
Paragraph 2 of case report lower written twice, I suspect the second was meant to be lung or perhaps just a duplication.

Discretionary Revisions (which the author can choose to ignore)
The mode of ventilation utilized during the procedure is not described. A limitation of other techniques for debulking with jet ventilation is that it needs to be held intermittently such that the debris can be evacuated and not forced distally into the airways. Was jet ventilation used and did the suction intrinsic to this technology save the need for periodic cessation of ventilation? This certainly would be advantageous in certain circumstances.
It was also unclear to me whether the addition of this modality rendered the airway more favorable to stenting. The airway surface being more uniform and smooth could be a potential advantage to avoid stent displacement.
Peri-operative anti-coagulation was not discussed.
The authors comment on the prolongation of the debulking procedure related to the use of thermal debulking modalities. This comment leads the reader to believe that the addition of the microdebrider is time saving although the authors do not document the time to complete the procedure.
Paragraph 2, the tracheal blades were subsequently designed up to a length of 37cm reads as if the blades themselves were 37cm rather than the microdebrider probe being elongated.
Paragraph 3 suggests that the microdebrider could potentially replace thermal modalities, although the authors themselves used APC to devitalize the tissue prior to debulking. As stated above, other potential advantages of this technique could be proposed. The precision and safety profile mentioned by the authors is a definite advantage.

What next?: Accept after minor essential revisions

Level of interest: An article of importance in its field

Quality of written English: Acceptable