

LETTERS TO THE EDITOR

Palliative Radiotherapy for Malignant Airway Obstruction Requiring Mechanical Ventilation

Answer or Anguish?

To the Editor:

Critically ill cancer patients with respiratory failure due to malignant airway obstruction (MAO) and needing mechanical ventilation (MV) pose a challenge and a controversy in clinical management for the intensivist.¹ In some instances, difficult extubation from MV require palliative radiation therapy (RT) to relieve symptoms and facilitate weaning from MV. Although MAO-related acute respiratory failure resulting in MV is an infrequent presentation, RT can aid in the liberation from MV and provide a safe alternative before the situation worsens leading to prolonged MV and worsening of signs and symptoms. This approach, however, is not widely practiced and is still debated among clinicians.

We read with interest the retrospective study by Louie et al.² which showed that 27% of patients were successfully extubated after RT and six of seven patients were successfully discharged home. We would like to bring certain practical issues that need to be considered.

First, short-course palliative RT of 30 Gy has been shown to achieve adequate reduction in symptoms due to airway stenosis without severe acute toxicities.³ In this study, the patients received lower dose of radiation. It is possible that more patients could have benefited with a higher dose of palliative RT with an even better outcome than reported.

Second, pulmonary and cardiac toxicities are a concern with RT to the chest. The degree of toxicity predicted needs to be balanced with the

improvement perceived. Acute toxicities, in fact, can worsen the clinical condition especially when receiving MV and also reduces the quality of life. We would like to know whether the authors would have considered any pre- and post-RT pulmonary assessment/function studies. In this study, the authors do not provide information on acute cardiopulmonary toxicities related to RT.⁴

Third, we would like the authors to comment on any variables they had noted or would have preferred to measure that could predict the risk of toxicity and outcome in their patient population.

Fourth, although a small number of patients were successfully extubated and discharged out of intensive care unit and hospital, it would have been useful to understand their quality of life, performance scores, and ability to perform activities of daily living. This may shift the focus from extubation from MV to postextubation meaningful lifestyle.

Finally, information on end-of-life care issues in their patient population and mode of MV, such as single lung versus double lung, pressure cycled versus volume cycled, and standard versus high-frequency ventilation, would have addressed some practical issues for clinicians and intensivist.⁵

We believe that further clinical studies will provide more understanding of the role of RT in MAO requiring MV. This study has indeed paved the way to this understanding and we would like to commend the authors for this work.

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Future Directions in Palliative Radiotherapy for Malignant Airway Obstruction Requiring Mechanical Ventilation

In Response:

We would like to thank Dr. Esquinas and Dr. Pravinkumar for their insightful comments on our work. Our goal was to raise awareness of radiotherapy as a treatment modality for severe malignant airway obstruction, necessitating intubation and mechanical ventilation, and we are glad the article has provoked discussion.

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