Successful treatment of pneumomediastinum in a patient with interstitial lung disease due to anti-synthetase syndrome: A case report

Roy Cho, Erhan H. Dincer, Rade Tomic, Hyun Kim

ABSTRACT

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CASE REPORT

A 35-year-old female with interstitial lung disease due to anti-synthetase syndrome presented with cough, hoarseness and facial swelling. Chest computed tomography scan demonstrated significant pneumomediastinum (Figure 1). Bronchoscopy and esophagram were unremarkable. We began high-concentration oxygen (10 L/min with non-rebreather face mask for 12-hours/day), withheld mycophenolate mofetil, reduced prednisone and began dextromethorphan. After one-month, there was complete resolution of her symptoms and pneumomediastinum.

DISCUSSION

Pneumomediastinum (PNM) is a rare complication of anti-synthetase syndrome with only three cases reported since 1986 [1–3]. The associated one-month mortality is 25%, which highlights the need for effective management [4]. The management of PNM in interstitial lung disease is based on case reports and experience forming expert opinion. However, the best management requires understanding the pathogenesis [5]. Several mechanisms of PNM in interstitial lung disease have been proposed including the Macklin effect, worsening vasculitis

Figure 1: Chest computed tomography (CT) scan at the level of the neck, heart and lung base demonstrating subcutaneous air and pneumomediastinum (left). After one-month of high-concentration oxygen, anti-tussives and reduction in immunosuppression; there was complete resolution (right).

Roy Cho¹, Erhan H. Dincer², Rade Tomic², Hyun Kim²

Affiliations: ¹Assistant Professor, University of Minnesota, Department of Pulmonary, Allergy, Critical Care and Sleep Medicine; ²Associate Professor, University of Minnesota, Department of Pulmonary, Allergy, Critical Care and Sleep Medicine.

Corresponding Author: Roy Cho, MD, Assistant Professor, University of Minnesota, Department of Pulmonary, Allergy, Critical Care and Sleep Medicine; Email: choxx548@umn.edu

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leading to airway rupture, and weakened alveolar walls from immunosuppression [6]. In this case, reducing immunosuppression suggested that weakened alveolar walls was a factor and using high-concentration oxygen and cough suppressant decidedly contributed to the full recovery. Notably, this is the second case in literature that has reported success using high-concentration oxygen for the treatment of PNM [7].

CONCLUSION

We report a case of pneumomediastinum in a patient with anti-synthetase syndrome who was successfully

treated with reduction in immunosuppression, high-concentration oxygen, and cough suppression.

Keywords: Anti-synthetase syndrome, Dermatomyositis, Interstitial lung disease, Pneumomediastinum

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Roy Cho – Substantial contributions to conception and design, Acquisition of data, Analysis and interpretation of data, Drafting the article, Revising it critically for important intellectual content, Final approval of the version to be published

Erhan H. Dincer – Analysis and interpretation of data, Revising it critically for important intellectual content, Final approval of the version to be published

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Guarantor

The corresponding author is the guarantor of submission.

Conflict of Interest

Authors declare no conflict of interest.

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