Inhaled prostacyclin in combination with high-frequency percussive ventilation.


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We present a case of severe acute respiratory distress syndrome pursuant to inhalation of a compressed gas computer keyboard cleaner. Despite the use of multimodal therapy to include empiric antibiotics, intravenous paralytics, intravenous concentrated albumin, high-dose corticosteroids as well as sustained high mean airway pressure mechanical ventilation by airway pressure release and high-frequency percussive ventilation (HFPV) modes, the patient demonstrated an unchanging arterial oxygen tension/fraction of inspired oxygen ratio of only 57 mm Hg. A trial of nebulized prostacyclin was initiated during HFPV leading to a significant improvement in arterial oxygen tension/fraction of inspired oxygen to 147 mmHg. The improved oxygen tension allowed for a reduction in mean airway pressure and oxygen concentration as well as the safe aeromedical evacuation of the patient from the combat theater. Further, prospective studies are required to validate the magnitude of response to inhaled prostacyclin during HFPV.

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