



## High-frequency Percussive Ventilation for Airway Clearance in Cystic Fibrosis: A Brief Report.

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Exacerbations of cystic fibrosis (CF) lung disease are characterized by increased inspissation of abnormally viscid pulmonary secretions with resultant plugging of small airways, worsened ventilation/perfusion mismatch, and increased physiological deadspace. In this circumstance, hypoxic respiratory failure necessitating mechanical ventilation can be life-threatening. We present such a case of CF lung disease poorly responsive to conventional mechanical ventilatory strategies, in which high-frequency percussive ventilation (HFPV) using volumetric diffusive respiration mobilized copious amounts of inspissated pulmonary secretions and improved refractory hypoxia. Subsequent transient hypercarbia necessitated titrating ventilator parameters to return the PaCO<sub>2</sub> to baseline; the voluminous clearance of secretions and improvement in oxygenation were sustained. HFPV appears unique in its ability to function as a methodological continuum from noninvasive percussion to invasive percussive ventilation for airway clearance, a fundamental tenet of the CF treatment paradigm.

PMID: 20602106 [PubMed - as supplied by publisher]

**Lung - 2010 Jul 3.**



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