Persistent pulmonary consolidation treated with intrapulmonary percussive ventilation: a preliminary report.

Birnkrant DJ, Pope JF, Lewarski J, Stegmaier J, Besunder JB.
MetroHealth Medical Center and Department of Pediatrics, Case Western Reserve University, School of Medicine, Cleveland, Ohio, USA.

Intrapulmonary percussive ventilation (IPV) is a novel form of chest physiotherapy delivered by a percussive pneumatic device (IPV, Percussionaire, Sandpoint, ID). There are few published reports about the use of IPV for diseases other than cystic fibrosis. We report our experience with three pediatric patients and one adult patient with persistent pulmonary consolidation refractory to conventional therapies. Three of the four patients had neuromuscular disease; one patient had segmental atelectasis due to aspiration. Three of the four patients showed clinical and radiographic improvement within 48 hours of starting IPV. The fourth patient experienced brief episodes of third-degree atroventricular block, hypoxemia, and bradycardia during two IPV treatments. IPV was safely restarted and he slowly improved. We conclude that while IPV requires further clinical evaluation, it appears to be a safe and effective therapy for selected patients. However, close observation is essential during and after IPV treatments, especially in patients who have difficulty mobilizing or expectorating sputum.

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