



Bi-caval dual lumen venovenous extracorporeal membrane oxygenation and high-frequency percussive ventilatory support for postintubation tracheal injury and acute respiratory distress syndrome.

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Bi-caval dual lumen venovenous extracorporeal membrane oxygenation (VV-ECMO) as a nonoperative approach to postintubation tracheal injury has not been described. We report the case of a 7-year-old boy who sustained a postintubation tracheal injury, developed acute respiratory distress syndrome from aspiration and viral pneumonitis, and was supported on bi-caval dual lumen VV-ECMO for 16 days until the trachea healed without surgical repair. Before ECMO decannulation, high-frequency percussive ventilation using a volumetric diffusive respiration ventilator was used for lung recruitment and airway clearance without disruption of the healed trachea. The use of ECMO to allow for lower mean airway pressure during initial healing and high-frequency percussive ventilation for lung recruitment and secretion clearance is a promising strategy to allow nonoperative tracheal injury repair in critically ill patients with multiple comorbidities.

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PMID: 22152899 [PubMed - in process]

J Pediatr Surg - 2011 Dec; 46(12):e11-5.



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