

Supplemental Digital Content 1. The Measurement of Alveolar Pressure in HFOV Groups

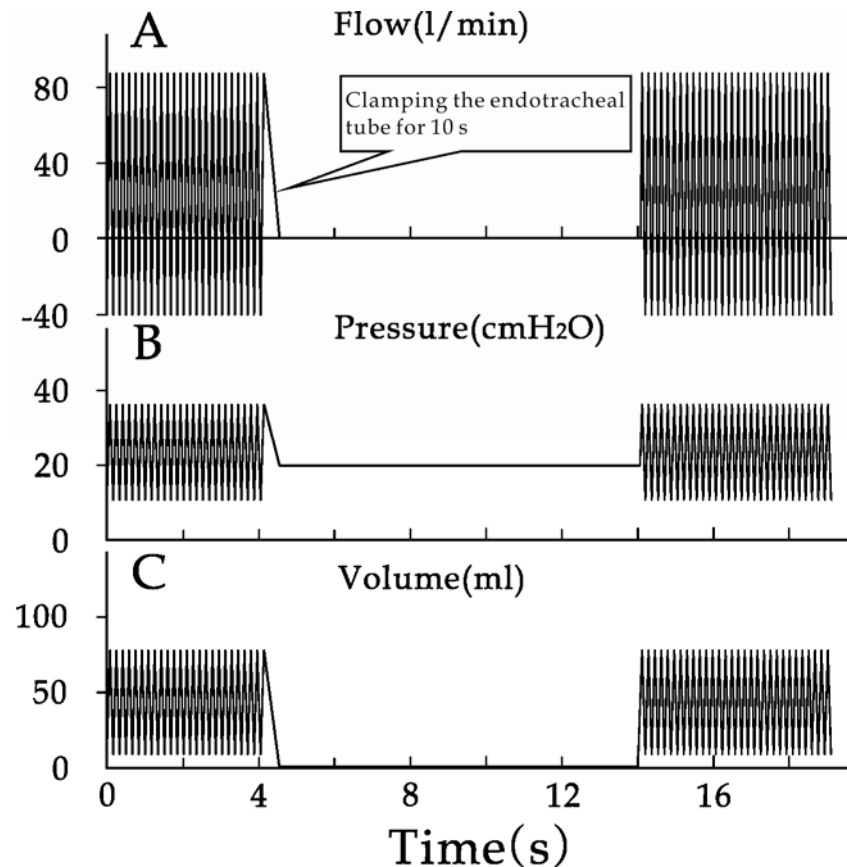


Fig. 1. Monitor's display of flow (A), pressure (B) and volume (C) after clamping the endotracheal tube during HFOV. Alveolar pressure in the HFOV groups was measured at each time point by inspiratory occlusion maneuver - keeping the endotracheal tube clamped for 10 s and measuring the resulting intratracheal pressure monitored by VENTRAK™ Model 1550 respiratory mechanics monitoring system (Novamatrix Medical Systems Inc., Wallingford, CT), during HFOV. The transpulmonary pressure (P<sub>tp</sub>) was computed as:  $P_{tp} = \text{averaged } P_{\text{alveo}} - \text{averaged } P_{\text{Eso}}$ .

HFOV = high-frequency oscillatory ventilation; P<sub>alveo</sub> = alveolar pressure; P<sub>Eso</sub> = esophageal pressure; P<sub>tp</sub> = transpulmonary pressure; S = second.