

**Supplemental Figure 1**

(A) Non-contrast axial chest computed tomographic scan of subject #1 at the level of the carina demonstrating a mediastinal mass anterior to the central airways. “M” indicates the mass. Red arrow indicates compressed left mainstem bronchus. (B) Digital virtual bronchoscopy of the region of central airway stenosis from the same patient. (C) Bronchoscopic still picture of the central airways during baseline, awake, spontaneous ventilation, and (D) during general anesthesia maintaining spontaneous ventilation, and (E) during general anesthesia with positive pressure ventilation, and (F) during general anesthesia with positive pressure ventilation and neuromuscular blockade.  **(See Supplemental Video # 1)**