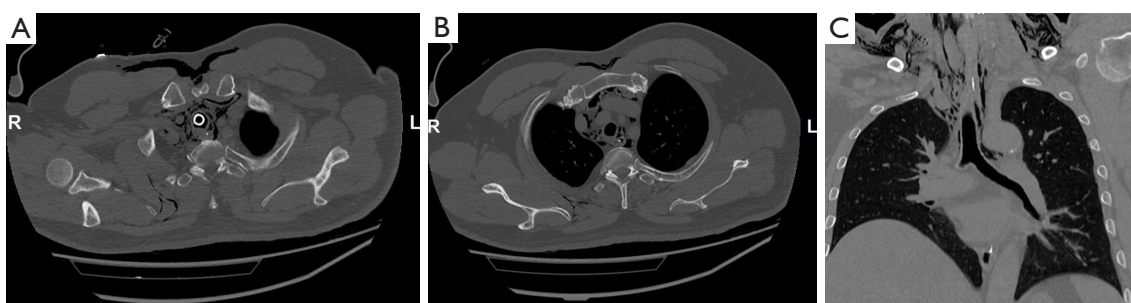


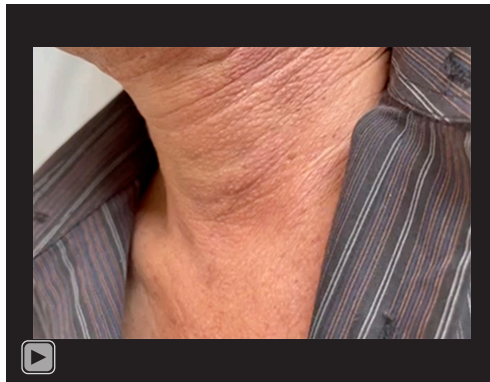
**Figure S1** An example of 1 case (70 years old) with anterior cervical vascular malformation. Due to the preoperative CECT evaluation, the potential for massive bleeding was avoided during tracheostomy.



**Figure S2** We have experienced bleeding, mediastinal pneumatosis and extensive pneumatosis in the neck soft tissue during tracheostomy, due to the presence of cervical vascular variation. An example of suboptimal tracheostomy in a 70-year-old woman with a malignant tumor. The multiplanar reformation (MPR) of CT images show multiple emphysema on both neck, mediastinum, breast and chest wall after tracheostomy. In order to avoid the occurrence of similar situation, the neck blood vessels have been evaluated before tracheostomy and some certain tracheal area related operations.



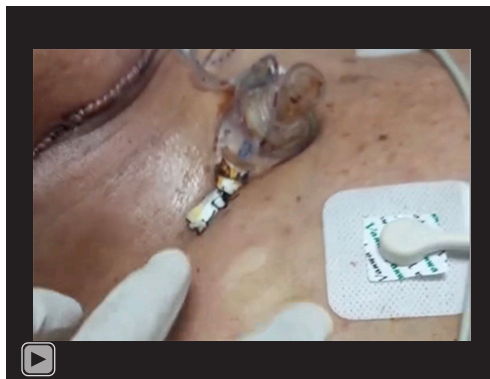
**Figure S3** The CT axial and coronal reconstructed images of CT images show a male patient (74 years old) with subcutaneous emphysema and mediastinal emphysema after tracheostomy.



**Video S1** Demonstrates the clinical evaluation (via inspection and palpation) of an elderly female patient diagnosed with a high-platform IA.



**Video S2** Presents the clinical assessment (via inspection and palpation) of an elderly male patient with a high-platform IA.



**Video S3** Video of complications of tracheotomy. Video of a male patient (74 years old) with subcutaneous emphysema and mediastinal emphysema after tracheotomy.