

Supplementary Information

Blind nasogastric tube insertion performed within one minute or for a maximum of two or three attempts during resuscitation may minimize laryngopharyngeal mucosal injury: a prospective observational study

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Figure S1. A figure illustrating the complications of nasogastric tube insertion.

(a) The chest X-ray shows that a nasogastric tube (white arrow) is inserted in the right trachea. (b) Video laryngoscopy reveals that the nasogastric tube (arrow) is placed in the trachea together with the intubation tube. (c) Severe bleeding from the site of mucosal injury during nasogastric tube insertion after initiation of anticoagulation therapy.

Figure S2. Nasogastric tube insertion taking longer than 120 s significantly increased the Injury score at all regions.

(a)–(c) The injury scores of the Dif group were significantly high compared with the Blind group for all regions (retropharyngeal wall, pharynx/vocal cord, and epiglottis/vallecula).

Ng: nasogastric, RPW: retropharyngeal wall, Px: pharynx, VC: vocal cord, Eg: epiglottis, VL: vallecula.

*, $p < 0.05$ (Student's t-test).

Figure S3. A figure illustrating the complications of nasogastric tube insertion.

The sharp edges (white arrow in the figure) created when the nasogastric tube is bent due to resistance during insertion. This sharp corner can damage the mucus membrane.

Video S1. A video demonstrating reflux of gastric contents into the trachea during resuscitation.

Reflux of gastric contents into the trachea during resuscitation was recorded using a video-laryngoscope.

Video S2. A video demonstrating the insertion of a nasogastric tube under the guidance of a video-laryngoscope.

The tip of the nasogastric tube is confirmed by lifting the larynx using a video-

laryngoscope. The tube is gently advanced without resistance through the oesophageal entrance; gastric contents can be seen in the tube after it reaches the stomach.

Video S3. A video showing the advancement of a nasogastric tube towards the trachea.

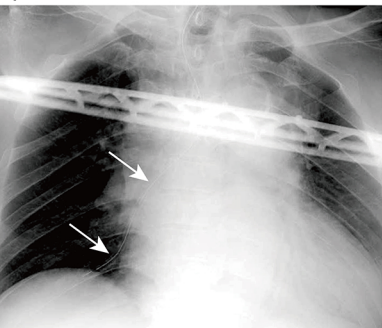
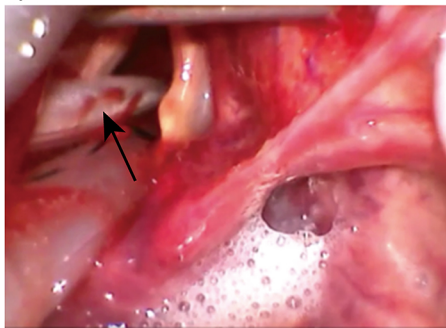
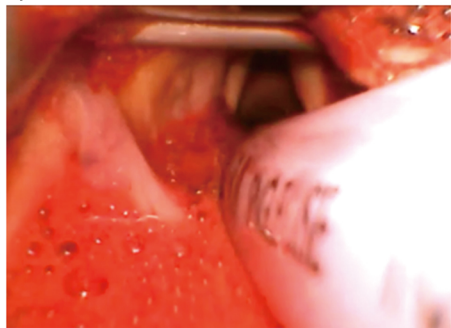
Video S4. A video showing the advancement of a nasogastric tube towards the oesophageal entrance.

However, in this attempt the tube could not be inserted into the oesophagus.

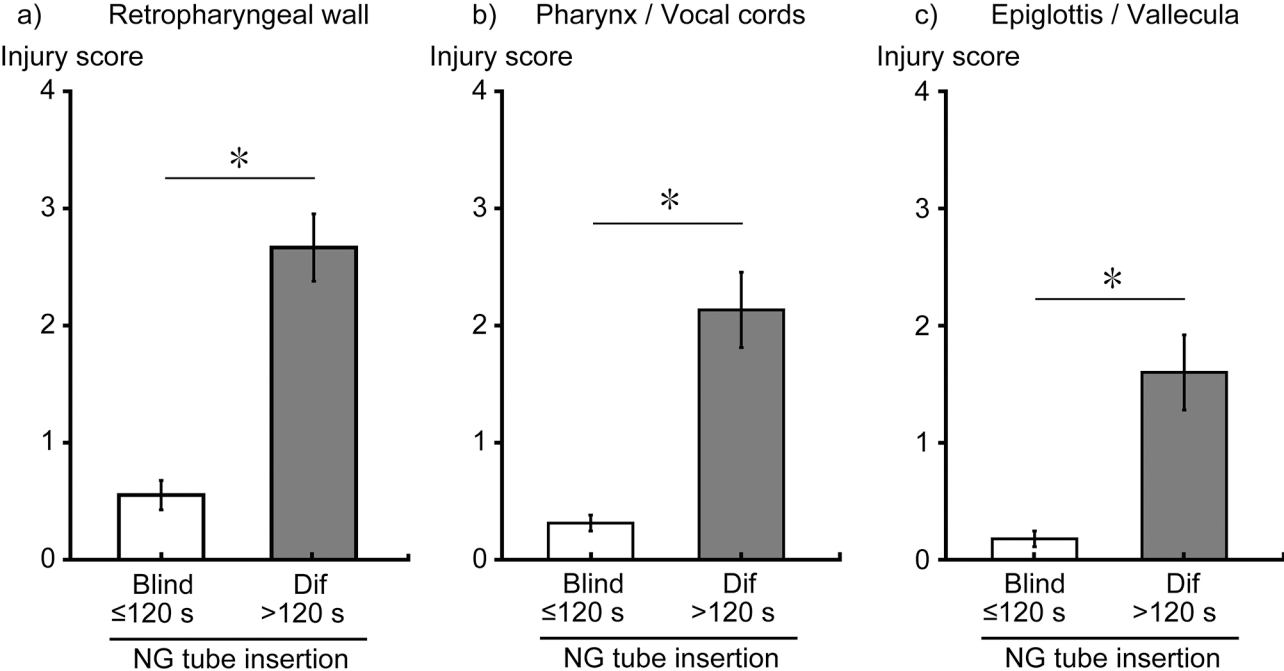
Video S5. A video showing failed nasogastric tube advancement through the oesophagus due to resistance felt during insertion.

Video S6. A video demonstrating the sharp edges created when the nasogastric tube is bent due to resistance during insertion.

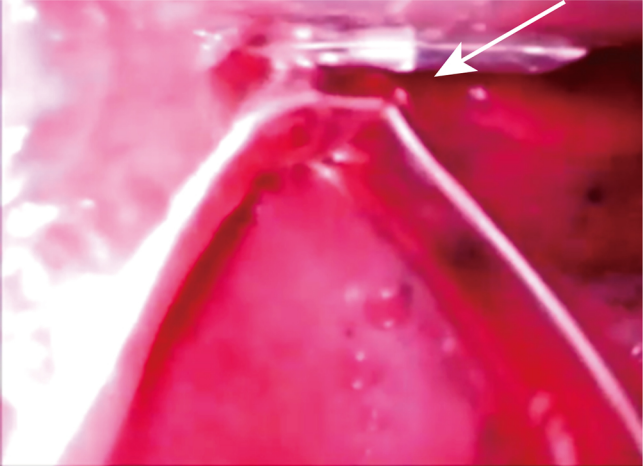
These sharp corners can damage the mucus membrane.

a)**b)****c)**

Supplementary Fig. S1



Supplementary Fig. S2



Supplementary Fig. S3