Project to Collect Medical Near-Miss/Adverse Event Information

Medical Safety Information

November 2024 No.216

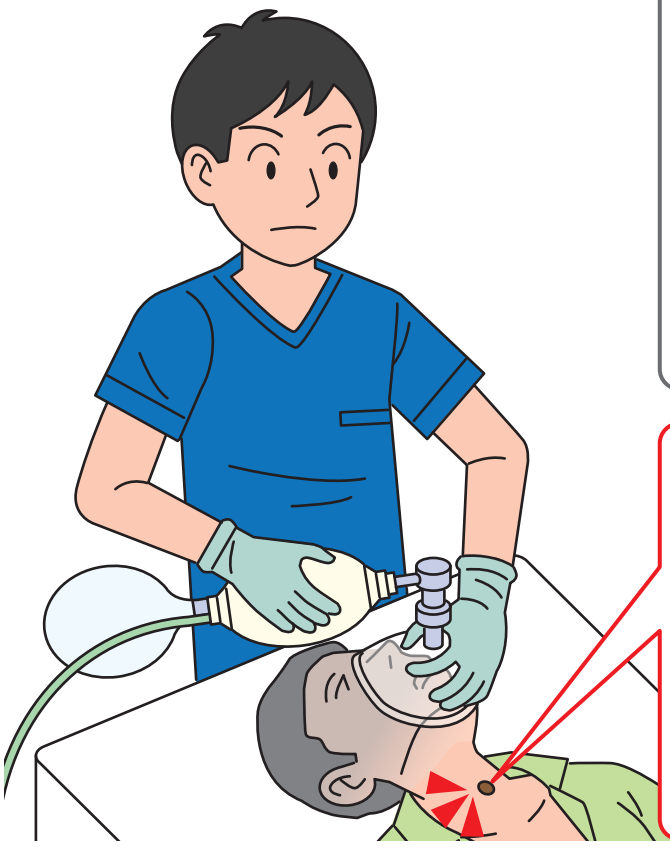
Ineffective Ventilation of a Patient with a Permanent Tracheostomy

Cases have been reported in which ineffective ventilation via the nose and mouth was attempted on a patient with a permanent tracheostomy.

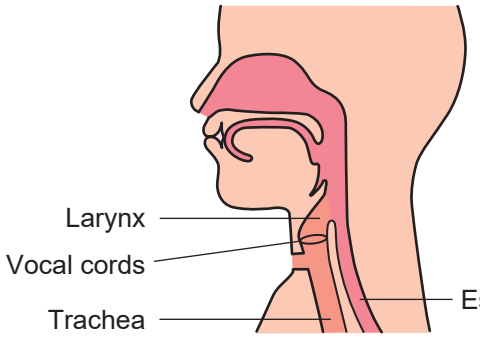
Eleven such cases were reported between January 1, 2018 and September 30, 2024. This information was compiled on the basis of the content featured in the Analysis Themes section of the 76th Quarterly Report.

Image of case

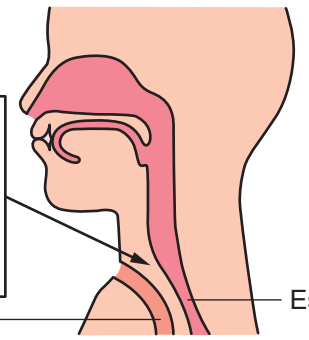
Unlike a tracheostomy, a permanent tracheostomy completely separates the nose and mouth from the connection between the trachea and the lungs, so the patient cannot be ventilated via the nose and mouth.



[Reference] Structure of a temporary tracheostomy



Structure of a permanent tracheostomy



Ineffective Ventilation of a Patient with a Permanent Tracheostomy

Case 1

The patient had a permanent tracheostomy, but this information had not been shared with the ICU staff. The patient's respiratory condition deteriorated, so the primary nurse asked the physician from the intensive care department to deal with the situation. The physician from the intensive care department attempted oronasal ventilation using a bag valve mask. The patient's attending physician subsequently arrived and pointed out that oronasal ventilation would not work because the patient had a permanent tracheostomy. The physician from the intensive care department inserted a tracheostomy tube via the permanent tracheostomy and commenced artificial ventilation.

Case 2

The patient was being managed on a ventilator via their permanent tracheostomy following laryngotracheal separation. As the ventilator alarm sounded, the nurse went to the patient's room and found that the tracheostomy tube had come out. Unaware that the patient had a permanent tracheostomy, the nurse attempted oronasal ventilation using a bag valve mask, but the patient's SpO_2 did not improve. Upon arriving, the duty physician noticed that the patient was not being ventilated, so they inserted a tracheostomy tube via the permanent tracheostomy and ventilated the patient.

Preventive measures taken at the medical institutions in which the events occurred

-If a patient has a permanent tracheostomy, medical staff will note this fact in a specific place on the electronic medical record, to facilitate information sharing with other medical personnel.

-The emergency response methods to be used with a patient who has a permanent tracheostomy will be displayed at the patient's bedside.

-Inform physicians and nurses of the structure of a permanent tracheostomy and the ventilation method to be used.

The measures above are examples. Please consider initiatives suitable for your own facility.

Department of Adverse Event Prevention
Japan Council for Quality Health Care
1-4-17 Kandamisaki-cho, Chiyoda-ku, Tokyo 101-0061 JAPAN
Direct Tel: +81-3-5217-0252 Direct Fax: +81-3-5217-0253
https://www.med-safe.jp/