

PERFORMANCE OF TRACHEOSTOMY IN PATIENTS WITH COVID-19 INFECTION. ANALYSIS OF INTERNATIONAL DATA

E. Kirasirova, N. Lafutkina, R. Mamedov, R. Rezakov, M. Usova, E. Kulabukhov

GBUZ "Research Clinical Institute of Otorhinolaryngology

them. L.I. Sverzhbsky "Department of Health of the city of Moscow.

117152 Moscow, Zagorodnoe highway, 18-A, building 2, Russia

E-mail: 43lor@mail.ru

Introduction. Currently, the total number of cases of the new coronavirus infection (COVID-19), according to international data, exceeds 30 million people. Patients with severe disease often require prolonged mechanical ventilation. To monitor the state of the airways throughout the entire period of the patient's stay in the intensive care unit (ICU), as well as to prevent the development of cicatricial (post-intubation) stenosis of the larynx / trachea, patients on mechanical ventilation often require tracheostomy. According to some reports, this procedure is performed in about 30% of patients with COVID infection who are on mechanical ventilation. Tracheostomy in the setting of COVID-19 infection is the most common operation performed on infected patients.

Results. On average, patients on mechanical ventilation undergo tracheostomy on days 7-10. However, in the case of COVID infection, there is a need to take into account the prognostic data of the patient's condition, as well as the increased risk of infection of medical personnel when performing any kind of surgery in this category of patients. According to various sources, patients with COVID infection underwent tracheostomy for an average of 14 days (range 9 to 21 days).

According to a number of publications in the ICU infected with COVID-19, preference is given to open surgery. This fact is largely due to the large number of overweight patients, which makes it difficult to perform puncture-dilated tracheostomy (PDT).

Given the fact that tracheostomy is a significant risk in terms of the possibility of infection of the personnel involved in the operation, it is necessary to reduce the medical team to the required minimum. To minimize the number of personnel in contact with patients, it is also possible to form permanent surgical teams.

When carrying out a tracheostomy, it is necessary to strictly adhere to safety requirements both during surgery and in the postoperative period. It is also mandatory to use personal protective equipment (PPE). The surgical team should have medical protective masks (N95 / FFP2), FFP3 mask or forced air filter respirator (PARP), sealed goggles, protective transparent face shield, overshoes / overshoes, gaiters, two pairs of gloves (nitrile / latex).

To prevent airborne transmission of infection, the operating room should be equipped with forced ventilation with negative pressure. For the same purpose, it is recommended to limit the intraoperative use of surgical lasers, motor systems and electrosurgical instruments, since they may form aerosol particles.

During the operation, it is necessary to preserve the integrity of the endotracheal tube cuff, and at the time of changing the endotracheal tube to tracheostomy ventilation should be stopped. Resumption of ventilation is possible only after inflation of the cuff of the tracheostomy tube and connection of the breathing circuit to it.

When the patient is weaned from the ventilator, a virus-trapping filter is installed on the tracheostomy tube connector. Changing the tracheostomy tube is carried out only if all safety requirements are met.

Conclusions

1. In prognostically favorable patients with COVID-19, who are on mechanical ventilation, tracheostomy is a necessary surgical operation, as it facilitates airway care, improves prognosis and reduces the risk of cicatricial complications in the postoperative period.

2. With proper safety precautions, performing a tracheostomy does not increase the risk of illness for the surgical team.

