Airway disasters: the day after

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Airway management in anaesthetic practice is usually successful and uncomplicated. However, when things do go wrong the consequences are potentially catastrophic. Although anaesthesia-related airway complications have decreased over the past 30 years with the routine use of capnography, pulse-oximetry and the implementation of practice guidelines for the management of the difficult airway [1], airway problems still account for over 25% of all anaesthesia-related deaths. The 4th National Audit Project of the Royal College of Anaesthetists and the Difficult Airway Society (NAP4) conducted over a period of a year in the United Kingdom included 38 deaths and 146 cases of severe morbidity attributable to an airway event [2].

Training in anaesthesia is focused on prevention and management of such airway emergencies and not on handling the consequences of an airway disaster [3]. However, the aftermath is equally important. Airway disasters can have a tremendous impact on the patient and their family and also on the healthcare team involved. Furthermore, these incidents could provide important information on how to improve safety in anaesthesia practice. Therefore, the challenges of the aftermath are to discuss the incident openly, even when there are concerns about possible suboptimal care, to support each other and to learn from things that have gone wrong.

In this lecture the following topics will be addressed

• Immediate actions to be taken after an airway disaster
• The needs and expectations of the patient and family who have experienced a critical incident.
• How to alleviate the impact of a critical incident on the healthcare provider involved.
• The importance of critical incident analysis

Immediate actions

Our first concern after an airway event should be to minimize further harm to the patient. In the acute setting treatment is focused on re-establishing and maintaining oxygenation. Maximal cardiorespiratory support should be instituted. Once re-oxygenation has been achieved a new airway strategy is needed. Additional therapies to minimize neurological injury (e.g. deep cooling) should be considered. In addition to continuation of delivery of medical care, specific steps agreed by the health care organisation need to be taken. Implicated drugs, equipment and records should be secured for further investigation. Where appropriate clinical leaders need to be informed about the incident promptly. All actions need to be documented clearly in the medical records. Furthermore, the airway difficulty must be documented and the patient and carers must be fully informed so appropriate management can be planned for nature of the future care [4].

Aftercare of the patient and family

As soon as possible the patient and family should be informed about the critical incident. Open disclosure to the patient and family is essential to restore and maintain trust and to provide appropriate on-going care. Open disclosure can be defined as the honest and timely communication so as to keep both patient and family members informed, acknowledge suffering or grief and avoid recurrence [5]. Harvard hospitals have adopted a consensus statement on how to respond after an adverse event. It offers clear recommendations on communication with patient and family after an incident and is well worth reading [6].
Support for the healthcare provider

Traditionally, training in anaesthesia has not addressed issues associated with patient death and how to communicate with families after a critical incident [3]. Therefore, anaesthetists are often unsure how to handle the aftermath of a critical event and where to seek support. It is advisable for each department to establish guidelines for the immediate management of the aftermath of a critical event, to implement open disclosure policies, and to educate and train healthcare providers how to apologise and communicate effectively with a patient after an incident [5,7].

An airway disaster can be very stressful for the healthcare provider and can result in significant long-term emotional sequelae, such as depression, post-traumatic stress symptoms and burn out [8]. The Association of Anaesthetists of Great Britain and Ireland published a report addressing the psychological impact of death or serious injury to a patient on the healthcare provider. They advocated debriefing as a means to foster open communication, reviewing the medical aspects of an event and providing emotional support after a critical incident [9]. They urged members of the department to support the anaesthetist who may be stressed and traumatised.

Learning from an incident

It is our obligation after a critical incident to minimise the likelihood of similar events occurring to other people. Systematic incident investigation is a prerequisite for learning and prevention of future events [10]. All parties should participate in a detailed analysis of the event. The goals of the analysis are to gain full understanding of the circumstances involved in the event, identify contributing factors and develop practical recommendations for systems changes to make it less likely the incident will recur. A successful incident reporting system needs to be confidential, it should employ an analytical framework to understand why things happened and provide the reporter with rapid feedback [10].

The NAP4 has been a very successful national prospective airway incident reporting system which provides a tremendous amount of valuable information on factors contributing to major airway-related incidents. Failure to adhere to airway guidelines, a lack of up-to-date knowledge, improper use of equipment, deficiencies of the necessary skills and human factors are all mentioned as important causative factors of airway disaster. This report contains many learning points and recommendations [11]. The next step would be to incorporate these recommendations into clinical practice and evaluate the result.

Summary

Airway management is safer now than ever before. Nevertheless the majority of anaesthetists are likely to experience an airway disaster at some point in their career. Exposure to a critical incident has a serious impact on the patient and his family as well as on the healthcare provider involved. Each department needs to develop and implement their own guidelines for dealing with and investigating critical incidents. They should encourage open disclosure as it enables patients, their families as well as healthcare providers to cope with critical incidents. Furthermore, open disclosure is essential for improving patient safety.

“The only real mistake is the one from which we learn nothing”

John Powell
Key Learning points

• After the lecture you will have some knowledge of the impact of a critical incident on the patient as well as on the healthcare provider.
• The lecture will provide you some guiding principles on how to handle the aftermath of a critical incident to meet the needs of the patient and his family and the your own team.
• The lecture will give a brief overview of what have we have learned so far from airway incident analysis.

References