Anaesthesia and Anaesthetics

Editorial ISSN: 2515-9844

Nosocomial infection and anesthesiologist

Viroj Wiwanitkit*

Visiting Professor, Hainan Medical University, China

Nosocomial infection is an important problem in medicine. This problem sporadically occurs in hospital setting and considered unwanted event in medical care. To manage the nosocomial infection, good infection control is needed. The nosocomial infection can occur in any medical work including to anesthesiology work. Loftus et al. noted that "*Potentially pathogenic, multidrug-resistant bacterial organisms are transmitted during the practice of general anesthesia to both the anesthesia work area and intravenous stopcock sets* [1]." Implementation of infection control measures in this area is needed. It is no doubt that such control measure can effectively reduce "*both the evolving problem of increasing bacterial resistance and the development of life-threatening infectious complications* [1]." The basic knowledge on the infection control is necessary for any anesthesiologist. According to a recent survey, et al. found that "*respondents showed good adhesion to practices of nosocomial infection prophylaxis and to improve them educational multidisciplinary campaigns are necessary* [2]." It seems that the anesthesiology has good knowledge and practice regarding infection control.

Nevertheless, there are also some reports on the nosocomial infections due to the anesthesiologist. The good example is the nosocomial meningitis. Suy et al. reported an interesting referencing case of "nosocomial meningitis due to *Streptoccus salivarius* linked to the oral flora of an anesthesiologist [3]." This is a good lesson learnt. From a single anesthesiologist who fail to practice according to standard infection control guideline, the clusters of nosocomial meningitis are the unwanted result [4]. Another important example is the cluster of hepatitis C infection originated from an anesthesiologist [5]. Stark et al. reported "*Acute hepatitis C occurred in three patients who had undergone gynecologic surgery in an outpatient clinic on a single day* [5]." In that situation [5], epidemiologic and molecular evidence confirm the problem.

Carelessness and human error is believed to be the main factor contributing to the problem. In any medical center, there should be specific work instruction regarding infection control and nosocomial prevention regarding anaesthesiology practice. Schulz-Stübner et al. noted that "*Data on risk factors would allow anesthesiologists to develop evidence-based guidelines for placement and care of catheters used for regional anesthesia. A multicenter surveillance system may help anesthesiologists address some of the unanswered questions and to develop evidence-based infection control recommendations* [6]." Of any preventive procedures, the simple practice on handwashing is confirmed for effectiveness in reducing risk of nosocomial infection [7]. Fukada et al. noted that instructing anesthesiologists in handwashing against bacterial contamination is required [7]. In addition, good cleansing of all anesthesiology tools is very important. Many tools directly deal with respiratory tract and it might pose the risk for further transmission of air borne disease such as tuberculosis [8]. Focusing on tuberculosis, the risk of the nosocomial infection is not only for patients but also the anesthesiologist [8].

Whereas the main role of anesthesiologist is on anesthesiology, the similar important role on infection control should not be forgotten. As concluded by Ferreira et al., "*The anesthesiologist is the professional who should intervene in the intraoperative period with simple measures to optimize the care of surgical patients and to reduce the incidence of infections* [9]."

Conflict of interest

None

References

1. Loftus RW, Koff MD, Burchman CC, Schwartzman JD, Thorum V, et al. (2008) Transmission of pathogenic bacterial organisms in the anesthesia work area. *Anesthesiology* 109: 399-407. [Crossref]
2. Kishi D, Videira RL (2011) Description of nosocomial infection prevention practices by anesthesiologists in a university hospital. *Rev Bras Anestesiol* 61: 177-181, 182-187, 95-100. [Crossref]
3. Suy F, Verhoeven PO, Lucht F, Grattard F, Carricajo A, et al. (2013) Nosocomial meningitis due to Streptoccus salivarius linked to the oral flora of an anesthesiologist. *Infect Control Hosp Epidemiol* 34: 331-332. [Crossref]
4. Thénié C, Carbonne A, Astagneau P (2008) Clusters of nosocomial meningitis associated with a single anesthesiologist. *Infect Control Hosp Epidemiol* 29: 286-287.
5. Stark K, Hänel M, Berg T, Schreier E (2006) Nosocomial transmission of hepatitis C virus from an anesthesiologist to three patients--epidemiologic and molecular evidence. *Arch Virol* 151: 1025-1030. [Crossref]
6. Schulz-Stübner S, Pottinger JM, Coffin SA, Herwaldt LA (2008) Nosocomial infections and infection control in regional anesthesia. *Acta Anaesthesiol Scand* 52: 1144-1157. [Crossref]
7. Fukada T, Tachibana C, Tsukazaki Y, Satoh K, Ohe Y (1997) Importance of instructing anesthesiologists in handwashing against bacterial contamination. *Masui* 46: 552-555.
8. Veber B (1996) Pulmonary tuberculosis in 1996. Recent data and practical consequences for the anesthesiologist. *Ann Fr Anesth Reanim* 15: 1080-1087.
9. Ferreira FA, Marin ML, Strabelli TM, Carmona MJ (2009) Ways the anesthesiologist can contribute to the prophylaxis of infection in the surgical patient. *Rev Bras Anestesiol* 59: 756-766.

Correspondence to: Viroj Wiwanitkit, Visiting Professor, Hainan Medical University, China, E-mail: wviroj@yahoo.com

Received: September 20, 2017; **Accepted:** October 13, 2017; **Published:** October 17, 2017