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The second victim phenomenon in Anesthesiology

Abstract

Errors in the practice of medicine are very unpleasant events that involve numerous factors of health professionals and/or the health systems themselves. Most of these incidents are foreseeable when the health professional is a responsible, up-to-date person, and works in an ideal health system. When the error leads to severe irreparable damage or the death of the patient, a difficult situation is generated, with several facets where the legal aspect predominates over the victims that have been generated. On one hand, the patient is a victim, and on the other hand the victimizer -usually one or more health professionals or technicians-, also becomes a victim.

This second victim has been described as having a severe negative impact that requires multifaceted professional support; emotional, psychological, familiar, social, economic, and legal. Stress is common among anesthesiologists, a situation that increases the incidence of this phenomenon among anesthesia providers. Unfortunately, there are few well-established programs to support second victims, which have favored early retirements, suicides, burnout syndrome, more errors, and other unsuspected harmful aspects.

Keywords: Error, negligence, second victim, anesthesia

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Introduction

To err is a human condition,[1] but it is not acceptable. When errors occur in the professional practice of medicine, the results can be trivial and in the worst case, they can lead to the death of patients. Medical errors are a health problem throughout the world without a practical solution having been found to completely alleviate this scourge. Although countless standards, guidelines, consensuses and other types of documents have been created aimed at reducing the frequency of medical errors, the goal set is still a utopia far from being solved; I would say that it is a humanly impossible aim. Despite this reality, recognizing each medical error, studying it, learning from it, and reviewing it carefully will progressively teach us how to prevent them, which should improve patients and health worker's safety in medical care, as well as optimize health care programs.[2-4] Every health care professional: doctor, nurse, chemist, technician, assistant, and/or administrator should recognize his/her errors, identify and report them promptly. On the other hand, the legal systems that analyze and study the non-medical aspects of the practice of each of these professionals and technicians should consider not only the error and its results in the short and long term; they should also carefully review the environment in which each mistake occurs. A health care worker who makes a mistake that causes serious harm to the patient may develop a phenomenon known as second victim, a situation that has been described as developing a severe negative impact that requires multifaceted professional support; emotional, psychological, social, economic, and legal.

Anesthesiology is a complex specialty that involves updated knowledge, technical skills and quick and safe decisions in common or critical situations. To control the risks that this implies, it is mandatory to carry out a complete preoperative evaluation of each patient and establish a management plan that involves a series of factors that include the results of the preanesthetic assessment, the review of the complete anesthesia machine and equipment, the appropriate administration of medications, as well as monitoring perioperative changes according to the needs of each patient. It is mandatory to know the environment of the operating room, the recovery area as well as the quality and warmth of all the staff members in the perioperative area. Continuous advances in anesthesiology have made this specialty a safer branch of medicine than ever. Despite these advances, anesthesiology continues to be an activity with a high risk of complications secondary to the various pathologies of surgical patients, due to human errors, equipment failures, and/or deficits in health systems.[5,6]

Errors in drug administration are, without a doubt, the most frequent failures in anesthesia; wrong dose, inappropriate route of administration, incorrect medicine, and other factors related to the multiple drugs used in the perioperative period. Kim et al.[7] identified 462 drug administration errors in the first 4000 reports in webAIRS; the commonest error category was wrong dose (29.4%), followed by substitution (28.1%), incorrect route (7.6%), omission (6.5%), inappropriate choice (5.8%), repetition (5.4%), insertion (4.1%), wrong timing (3.5%), erroneous patient (1.5%), incorrect side (1.5%) and others (6.5%). These types of errors are usually fleeting, sometimes unnoticed, but in a significant number of patients those faults are potential factors for persistent damage. The total estimated added fully allocated annual cost of care due to perioperative medication errors can be as high as $5.33 billion U.S. dollars.[8] Ninety-five percent of self-reported medication errors in the operating room were classified as preventable.[9]

Concept of the second victim

Most incidents in medicine are foreseeable when the health professional is a responsible, up-to-date person, and works in an ideal health system. When the error leads to severe irreparable damage or the death of the patient, a difficult situation is generated, with several facets where the legal aspect predominates over the victims that have been generated by the incident. On one hand, the patient is a victim, and on the other hand the victimizer (usually one or more health professionals or technicians) also becomes a victim.

This second victim phenomenon has been described as having a severe negative impact that requires multifaceted professional support; emotional, psychological, familiar, social, economic, and legal. Second casualty, a phenomenon experienced by approximately half of healthcare providers[10] occurs when healthcare personnel, usually

a doctor or a nurse, experience negative physical, psychological, or emotional effects after an adverse event, such as an accident, patient-related injury or death. This term was coined by Albert Wu et al. in 2000[11,12] to emphasize the serious negative experience of health care professionals with these events and the need to effectively support them.

If the side effects produced by this second victim phenomenon are not addressed promptly, a cascade of negative events is generated; from defensive medicine, more errors, early retirements, suicides, homicides, burnout syndrome, and other unsuspected deleterious aspects.[13-15]

Although the detailed description of the term second victim may be uncomfortable for patients and their families who are the first casualties, this topic is currently well known and studied in the medical scene. Unfortunately, there are not enough standards for prevention, management or support programs for the health professionals affected by this entity. The second victim develops defense mechanisms to survive the incident, mechanisms that must be professionally supported so that the affected health care worker can overcome all aspects of the crisis and return to his/her usual activity in a competitive, humane and familiar way. Although the second victim was the one who involuntarily induced the incident, there was no malice, so, the negligence and its results must be overcome, not forgotten but rather part of an unfortunate past.[16]

Differential diagnosis

It is imperative to set up a differential diagnosis algorithm in order to establish a correct diagnosis and initiate a comprehensive support protocol. Table 1 lists the pathologies that could be confused with this phenomenon. Sometimes several symptoms can coexist and make it even more difficult to diagnose and manage health workers affected by these entities. The symptoms of the second victim phenomenon always begin after an incident with secondary harm to the patient. The onset can be immediate or late and will depend on various issues such as the intensity of the damage to the patient and his/her family, personality, training, and experience of the professional or technician involved. Likewise, the support of colleagues, the environment around the incident, and the health system where the incident occurred are important factors in the development of this clinical entity.

Table 1 Differential diagnosis

Burnout
Depression
Prolonged grief disorder
Job stress reaction and fatigue
Issues with alcohol, medications, or substance use
Issues with physical health and illness

Second victim in anesthesiology

I was recently involved in a medico legal case with a history of chronic second victim syndrome. An anesthesiologist literally abandoned his patient in the operating room and the patient died. This colleague did not have adequate support nor was able to somehow overcome his professional crisis. Years later he continues to act as a second victim, which has affected his professional, family and friend's environment. There are too many cases like this colleague, and the health system authorities, medical centers, as well as medical organizations do not have enough second victim support programs, or their backing programs are deficient and little known.

With four decades of practicing anesthesiology, I have had countless mistakes; surely, I did not realize many of them, but I noticed many others in a timely manner that I was able to correct them without harming my patients, except for two of them who died due to poor airway management.[17] I was a young, inexperienced, and arrogant anesthesiologist who thought knew everything about my specialty, a typical Dunning-Kruger effect.[18] Fortunately, at the beginning of my career when I had these two unexpected deaths, I developed the second victimhood phenomenon, unknown at that time. One of my tutors was kind enough to give me the best professional advice at that time of my young years as an anesthesiologist; «Enjoy what I teach you and do it better.»

Since the original description of this phenomenon[11,12] hundreds of articles addressing this topic have been published, which has served to get some institutions interested in this subject and design support programs for their health workers, especially doctors and nurses, who are the ones who are closest to patients. Specialties such as anesthesiology, critical care medicine, surgery, trauma, orthopedic, nursing, and some others have published about it and their data are useful for all of us who work in government hospitals and clinics and/or the private sector.[10,14,19-23]

The frequent stressful situations inherent to our specialty are linked to making mistakes, which could increase the incidence of this phenomenon among anesthesiologists and promote more errors, absenteeism, rejection, demoralization, and distrust that prolong the second victim cascade.[10]

Implementing a support program for second victims

Silently suffering the results of our serious mistakes is not right; as healthcare workers we must have access to a robust program to support us when we have an incident that negatively affects our patients. Lack of help after an incident is a determining factor in the development of second victim syndrome. The support programs for nurses and physicians who practice anesthesiology that have been implemented in some university medical centers have in common the goal of avoiding this condition by reducing anxiety, stress, and other secondary factors, restoring self-esteem and professional self-sufficiency in a short time. With these support programs, the second victims have a platinum opportunity that favors their return to the practice of their profession and, with it, restarting a normal life.

The study by Pelican[19] assessed the impact of a peer support program on anesthesia providers; these authors proved that the implementation of a peer support program significantly influenced anesthesia professionals, psychological distress and perception of adequate institutional support. Although psychological support is good in some anesthesia departments, it is necessary to optimize it and disseminate these concepts. White et al.[24] recommended post-incident support as soon as possible, regardless of whether the backing appears necessary or not, involving a proactive approach. The resources available to staff and leadership after an adverse event occurs is the hospital or organization's clergy, psychiatric department, or employee aid program. There are certain immediate actions that must be implemented in support of second victims.[25,26]

a) Taking time away from work to access the support services

b) Fears or doubts about the privacy of services

c) Concern that support would be placed in a permanent employee record

d) Concern that accepting emotional aid might affect malpractice premiums.

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e) Possible negative judgments by colleagues

f) Stigma associated with accessing services.

g) Unsuccessful support

h) A lack of understanding of the purpose of the second victim support program

i) A lack of awareness on the employee help program part on how to support second victims

Second victims need urgent, friendly and confidential support within a comprehensive, easily accessible and layered system. It is critical to strengthen the resilience of the physicians involved. Timely and correct leadership and communication during the crisis can sustainably support physicians, resilience and thus their ability to function effectively, helping them overcome the second victim phenomenon, and continue with their professional activity, recovering their family and social life.

Conclusion

Morbidity and mortality due to anesthesia have decreased considerably, but are still far from zero. Most errors in the peri anesthetic period are multifactorial, where human error plays a determining role. Technological advances in airway management, anesthesia machines, ventilators, infusion pumps, as well as better drugs and multiple guidelines for safer anesthesiological care have been determining factors in the reduction of human errors. The stress inherent to our specialty makes anesthesiologists prone to patient safety situations, producing unforeseen adverse events that can create serious negative impacts that manifest as the second victim phenomenon. In this stressful practice, our mental health and well-being are often overlooked, and no support is provided to doctors or nurses in difficulty, which causes the second victim phenomenon to persist for longer, generating inappropriate behavior in the affected individuals. As anesthesiologists with a high risk of making errors and becoming second victims, it is our duty to strive for the development of comprehensive support programs in our workplaces, as well as to improve the perioperative work environment.

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