Trauma, tragedy, and time

Trauma medicine has a unique tie to human tragedy. Historically, the descent of nations into horrific wars has been accompanied by accelerated growth in the science and technology of the field. Military ventures spur developments in hemorrhage control, airway management, and surgical care, which are eventually adapted for use in the civilian setting. Indeed, the inner-city gunshot victim rushed into a trauma center today benefits from wound care techniques that evolved over centuries of warfare.

While these innovations have reduced the physical impact of trauma, the psychological consequences must also not be ignored. For victims, trauma shatters the sense of control that they have over their own fate. It swiftly disrupts what to them had been a predictable rhythm of life and forces them to reconstruct their once stable self-identity. In the case of life-threatening injury, patients must confront their own mortality in minutes, a process which usually occurs over many years. As a result, victims and their families feel a sense of helplessness, and it becomes the responsibility of the trauma team to empower them and restore safety and control.

Good patient care in a high-acuity setting is contingent on efficient teamwork. The trauma bay is the intersection point for various medical workers such as technicians, nurses, emergency physicians, surgeons and anaesthesiologists. Although multidisciplinary teams are employed in many areas of medicine, in no other field is the coordination of a team so crucial to patient outcome. In such a time-sensitive setting where there is potential for irreversible morbidity and mortality, a well-rehearsed protocol is essential for bringing organization to a scene of chaos. It is therefore no surprise that countless hours of simulation-based training are required to perfect this choreography. The time constraint also forces the trauma team to simultaneously tackle the initial management, history, physical, diagnosis, and treatment of the patient. Decisions must be made based on incomplete information, which highlights the difficult task of balancing speed and caution of care in a rapidly decompensating patient; favouring speed risks negligence, while favouring caution risks fatal delay. Disaster scenarios present the additional ethical dilemma of triaging many patients in the context of limited resources.

In contrast to the tremendous influence physicians have over patient survival, they have an unusual lack of influence over the prevention of trauma, as this is a far more complicated challenge. Unlike other fields of medicine in which doctors can address modifiable risk factors, trauma is largely unpredictable. Solving issues such as drunk driving and gun

violence is a responsibility that transcends medicine and instead falls mostly within the purview of law and politics. Nevertheless, because physicians witness firsthand the grim realities of these issues, they play a key role as advocates for trauma prevention.

We hope that this issue on trauma and disaster medicine showcases the excitement and challenge of managing high-acuity cases. The breadth of the field is reflected in the wide range of topics discussed, which include the psychological impact of natural disasters, the power of point-of-care ultrasound, and the readiness of our healthcare system to respond to a public health emergency. As we inevitably face tragedies, both manmade and natural, we will continue to re-invent our tools and techniques in the pursuit of better trauma care.

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