A thousand miles starts with a single step: vascular accesses and difficult intubation in the trauma and intensive care areas

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Trauma patients have concentrated in trauma centers where they receive systematic treatment. The number of severe trauma patients has increased annually since the establishment of trauma centers in Korea in 2013. Injury appearance increased with the proportion of compound injuries instead of single injuries (81.1% versus 18.9%) and the emergency room mortality and post-admission mortality are 4.7% and 13.2% respectively (1). The trauma system in Korea has greatly developed for many years with the close cooperation between the government and trauma centers. Trauma doctors’ knowledge about trauma and management procedures has also been greatly developed at the same time. Also recently the procedures performed in trauma resuscitation rooms have gradually changed to endovascular procedures. In particular, resuscitative endovascular balloon occlusion of the aorta (REBOA) is more popular than in the past in order to treat patients with traumatic hemorrhage. Therefore, some trauma centers require patients to obtain the femoral artery and venous route simultaneously on arrival, before vascular collapse occurs, and implement REBOA immediately when REBOA is needed. Some authors also carefully suggest that on the primary survey basis of advanced trauma life support (ATLS), ABCDE (airway, breathing, circulation, disability, environment, and exposure) should be added to provide early vascular guarantee for endovascular procedure and resuscitation, so as to produce the concept of AABCDE (airway and early vascular access, breathing, circulation, disability, environment, and exposure) (2). Another problem as important as securing blood vessels is securing difficult airways. Video laryngoscope's popularity does not damage the glottis for patients with difficult airway, does not force tracheal intubation, reduces complications, and saves time (3). However, it seems that not all doctors working in emergency rooms and intensive care units are doing these procedures freely and/or have the correct anatomical blood vessel and trachea knowledge (4). It is believed that this is due to the lack of a systematic education and undefined operation methods in various clinical departments. The rapid acquisition of airway and blood vessels is directly related to the life safety of patients, especially in the field of trauma, which can be overcome by repeated and systematic management education.

Therefore, this TIP (Trauma Image and Procedure) systematically collates and publishes the common central venous and arterial blood vessel accesses and difficult airway...
management in the trauma resuscitation room and intensive care unit, trying to categorize the common trauma procedures. I hope that through this opportunity, we can review and sort out our previous technical records, which will be helpful for future trauma surgeons.

Conflict of interest

No potential conflict of interest relevant to this article was reported.

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