کارگاه‌های آموزشی مرکز اطلاعات علمی

مقاله نویسی علوم انسانی

اصول تنظیم قراردادها

آموزش مهارت‌های کاربردی در تدوین و چاپ مقاله
Perfect Timing of Tracheostomy in Patients with Traumatic Brain Injury

Shahram Paydar¹, Hosseinali Khalili², Seyed Mohsen Mousavi*¹

¹Trauma Research Center, Shahid Rajaee (Emtiaz) Trauma Hospital, Shiraz University of Medical Sciences, Shiraz, Iran
²Shiraz Neuroscience Research Center, Department of Neurosurgery, Shiraz University of Medical Sciences, Shiraz, Iran

*Corresponding author: Seyed Mohsen Mousavi
Number 12, Shaghayegh alley, 59thsq, Narmak, Tehran, Iran. Tel: +98-912-3776901, Fax: +98-21-77924960
E-mail: mohsen_hawk@yahoo.com

Received: February 19, 2014
Revised: April 03, 2014
Accepted: April 18, 2014

Keywords: Deep brain stimulation; Traumatic brain injury; Persistent vegetative state; Behavioral changes.

Dear Editor,

We would like to acknowledge Ziaeian et al. for their recent valuable paper, published in the July 2013 issue of your weighty journal, titled as “Short-term Outcome of Early Tracheostomy in the Trauma Patients Admitted to Intensive Care Unit: A Comparative Study” [1]. In addition, we postulate to raise some practical considerations.

While acknowledging what has been mentioned in this article about timing of tracheostomy in trauma patients, it ought to be mentioned that in our trauma center, which is a level I trauma center in Southern Iran with a heavy workload to contend with [2,3], and regarding our previous experiences, our decision about the perfect timing of tracheostomy in trauma patients depends on two main factors. The first factor is the pace of rising of level of consciousness with focus on patient’s best motor response (according to Glasgow Coma Scale), and the second one is the success rate of the medical team in managing the primary shock state of the patient, regarding patient’s amount of base deficit (BD) in the first 24 hours of admission. If both of the abovementioned factors were not satisfactory in a patient, due to our observations, it would be so unlikely for the patient to alleviate clinically and weaned off the ventilator in next 14 days. So in this case tracheostomy will be performed in the fourth or fifth day of ICU admission. However, if the shock state could be managed and corrected in first 24 hours of admission, and patient has only one (or no) blood gas analysis showing mild to moderate acidosis (or BD<–6), the only important factor would be the pace of rising of level of consciousness with focus on patient’s best motor response. If the patient has had a motor response less than 4 up to the fourth day of admission, less than 5 up to seventh day or less than 6 up to the ninth day, he or she would be scheduled for the tracheostomy operation in the next day.

In this regards, Rizk and co-workers [4] evaluated the influence of tracheostomy timing on outcome after severe head injury. They included a total number of 3,104 patients with severe traumatic brain injury undergoing early (1 to 7 days after admission) or late (>7 days after admission) tracheostomy. They found that the strategy of early tracheostomy, particularly when performed on patients with a reasonable chance of survival, results in a better overall clinical outcome than when the tracheostomy is performed in a delayed.
manner [4]. Alali et al., [5] in a recent study included 1,154 patients with traumatic brain injury. They showed with level II evidence that early tracheostomy was associated with fewer mechanical ventilation day, shorter intensive care unit stay, shorter hospital length of stay and lower odds of pneumonia, deep venous thrombosis and decubitus ulcer but no significant difference in pulmonary embolism. Hospital mortality was similar between both groups [5]. Taking all together, it seems that early tracheostomy should be suggested for patients with severe traumatic brain injury who have chance of survival.

Conflict of Interest: None declared.

References


