Mock abstract

Does prehospital fluid administration in traumatized patients increase mortality?

Rattanaporn Burimsittichai MD., Wimonrat Sriraj MD., M.Sc., Bandit Thinkamrop, <others to be added>

Abstract

Background : It has been reported that prehospital fluid administration worsens trauma patients’ outcome especially when bleeding is not properly controlled. However, there is still some controversy in terms of different type of injury and organ involvement.

Objective : To determine the practice of Thai Emergency Medical Service (EMS) Advanced Life Support (ALS) in the aspect of prehospital fluid administration in trauma patients and its influence on patients’ mortality.

Methods : A retrospective cohort study was performed based on the nationally collected EMS (ALS) data. We compared the mortality between patients who received and did not received prehospital fluid administration. Additionally, multiple logistic regression analysis was performed in subgroup of mechanism of injury, organ involvement and severity of the patient.

Results : A total of xxx patients were registered in the Thai EMS (ALS) record. xxx (xx%) of them were traumatized patients, which were divided into xxx (xx%) patients receiving and xxx (xx%) patients not receiving prehospital fluid therapy. Patients having intravascular fluid before admitting to the hospital had higher mortality rate and took longer transport time than those without prehospital fluid administration (xx% vs xx%; difference = xx%; 95%CI xx, xx; p = 0.xxx and xxx min vs xxx min; difference = xxx min; 95%CI xxx, xxx; p = 0.xxx, respectively). Subgroup analysis showed that there was an association between prehospital fluid theray and increased mortality in patients with penetrating injury, thoraco-abdominal injury and hemodynamic instability (OR = x.x; 95%CI xx, xx; p = 0.xxx).

Conclusions : The routine practice of prehospital fluid administration may increase mortality in traumatized patients. The EMS personnel should give priority to hemorrhagic control and transportation to the hospital for definitive surgical intervention.

Keywords : prehospital fluid, trauma mortality, trauma prehospital fluid