Pain Management in Prehospital Emergency Service: A Neglected Necessity in Iranian Healthcare System

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Abstract

Pain, as a complex neurophysiological and neuropsychological mechanism, is one of the most common experiences among patients in prehospital emergency service. Although, there is no accurate data regarding the prevalence of pain in prehospital settings like there is for hospital emergency departments, in developed countries, despite the contradictions in the results of the numerous studies, the evidence indicate the high prevalence of acute pain in prehospital emergency service ranging from 20% to 53%. Yet, unfortunately, in Iran there is no statistics available in this regard. The physiological (affecting cardiovascular, respiratory, endocrine and other systems) and psychological (anxiety, anger, aggression, and ...) complications due to uncontrolled acute pain have many adverse effects on the clinical outcomes of medical and traumatic patients and impose immense direct and indirect financial burdens on the limited resources of healthcare systems. Therefore, effective pain management using various pharmaceutical and non-pharmaceutical methods both on the scene and during transportation has become a potentially indispensable necessity and considered as a potential key performance indicator according to the National Association of EMS Physicians.

An extensive literature review also revealed remarkable improvements in the use of analgesics in prehospital emergency service of many developed countries and opioid analgesics (e.g., morphine sulfate, fentanyl and ketamine); nonsteroidal anti-inflammatory drugs (e.g., Ketorolac and ibuprofen); and Paracetamol and Nitric Oxide (inhalation gas) have been put on the list of prehospital emergency service for relieving patients’ pain, which can be used based on qualification/competencies, roles, responsibilities, and degrees (EMR, EMT, AEMT, paramedic) of the providers of prehospital care with approval of the consultant physician or through use of a combination of off-line and on-line medical protocols in this regard. The majority of recent studies in this field focus on the inadequacy of prehospital pain management as well as the comparison and combination of various analgesic drugs to enhance efficacy, effectiveness and quality of healthcare provision.

In Iran, based on the 15th item of the regulation on the “organization of comprehensive coverage of pre-hospital emergency medical services” by the ministry of health, which was implemented in 23 items in 2007 and conveyed to all administrative units, notifies that both type (B) and type (C) ambulances in prehospital emergency service, a subset of the disaster and emergency medical management center, should be equipped with analgesics
or similar products. However, unfortunately, there are no analgesics or similar products in prehospital emergency services in most provinces of our country and only Ketorolac, which is only effective in management of mild to moderate pain, is available for pain management quite limitedly and in just a handful of regions. Obviously, the most important outcome of lack of analgesics for managing acute pain in urban and intercity prehospital emergency services, which are the first line in medical emergencies, accidents and disasters, is infliction of suffering, illness, distress and destructive psychophysiological responses of pain on patients from the occurrence of the accident to hospital arrival, and depriving them from their right for reducing and controlling pain, which is incompatible with patient’s rights charter in our country and will lead to patients being dissatisfied with and distrusting prehospital emergency service. In addition, daily exposure to patients suffering from uncontrolled acute pain and incapability to relieve their pain despite having the necessary clinical competency causes a high level of moral distress to prehospital care providers and has negative effects on their morale and performance.

A comparison of the existing pain management proceedings in prehospital emergency service of developed countries with Iran indicates a lack of standardized scientific approach in the field of prehospital pain management in our country, which results in the current unfavorable condition. Though strong evidence exist regarding the necessity of early treatment of pain, which is not only ethically correct, but is also of primary importance in controlling both its metabolic repercussions and improvement of patient outcomes, and despite the extensive use of analgesics in developed countries’ advanced prehospital care, unfortunately, misconceptions like fear of possible adverse events tied to analgesic use, possibility of masking clinical findings (signs and symptoms of illness) following pain relief, probable abuse of analgesic medications specially opioids, and etc. have prevented consideration of analgesics for common use in our prehospital emergency service, to date.

Working in prehospital emergency service and providing service in real accident scenes and observing the present problems in this field made the authors address this neglected issue by explaining the status quo and weighing up the opportunities and threats ahead. We hope that the officials of Iran Disaster and Emergency Management Center (DEMC), Ministry of Health and others involved pay special attention to this matter and take effective steps towards removing organizational and legal obstacles that lie in the way of using analgesics in our prehospital emergency service by taking proper actions such as development, ratification, review and dissemination of evidence-based clinical practice guidelines and off-line protocols for prehospital pain management and training highly competent advanced prehospital providers (paramedics).