



## Correspondence

**Observations regarding battlefield acupuncture to treat low back pain in the emergency department?**


Dear Editor,

We read with great interest a recent publication on the use of battlefield acupuncture (BFA) to treat low back pain (LBP) in the emergency department [1]. This is a pilot interventional study illustrating the feasibility of using ear acupuncture as a modality to alleviate symptoms of LBP. We would like to highlight a few observations. Although the study has shown a statistically significant difference in the post-intervention numerical rating scale (NRS) for low back pain between the control group and BFA group, it was unclear what were the pre-intervention NRS in these 2 groups and the changes in the pre-and-post intervention NRS between the 2 groups. A statistically significant NRS between the two groups post intervention does not equate a statistically significant reduction in NRS within the group pre-and-post treatment. As a result, it was impossible to comment on the clinical significance between the pre-and-post intervention NRS. A previous study conducted in an emergency department setting involving patients presenting with pain had determined the minimum clinically significant difference for the 11 point NRS to be  $1.39 \pm 1.05$  (95% confidence interval, 1.27–1.51) [2]. Hence knowing the magnitude of change in NRS may help to place the significance of the intervention in context.

It is also interesting to note that an equal number of patients in both groups had opioid medications administered in the emergency department. Hence battlefield acupuncture did not reduce the number of patients who required opioids, however it was unclear regarding the timing of opioid administration relative to the application of battlefield acupuncture. Although the number of patients requiring opioids did not change, it may be worthwhile looking at the total dosage of opioids required to ascertain if there might be a difference between the two groups.

A systematic review and meta-analysis by Jan et al. specifically examined the role of auriculoacupuncture for pain relief in the emergency setting had shown significantly reduced pain scores but acknowledged that the overall number of patients included were small [3]. We do not dispute the potential efficacy of acupuncture for pain management in general but the fact remains that evidence of auriculoacupuncture is less robust than conventional acupuncture.

In addition to the problem with opioid use, we understand that it is difficult to manage acute low back pain with non-pharmacological techniques in the environment of the emergency department. Hence any novel techniques including battlefield acupuncture will be welcomed.

We would like to end by congratulating the authors on completing this study within the complexities of an emergency department.

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**Resuscitation group should be a part of all pulmonary thromboembolism risk stratifications**


To the Editor,

Pulmonary thromboembolism (PTE) is manifested in numerous ways, from asymptomatic and/or incidentaloma to being fatal. Because the symptoms and signs are not specific, PTE has been named as “the chameleon”. Together with this, the prevalent co-morbidities cause a delay in the correct diagnosis thereby postponing the necessary timely treatment (that can be life-saving) [1]. From the number of patients who die because of PTE, the majority do so prior to reaching the hospital [2]. Therefore, a significant proportion of patients with cardiac arrest is because of PTE: 2–13% of arrests occur out of the hospital and 5–6% of those occurring in the hospital [3–5]. No less than 30% of such patients had been misdiagnosed [5,6]. The pulseless electrical activity (PEA) had been found in 63% of PTE patients with cardiac arrest, asystole in 32% and ventricular fibrillation in 5% [5,6]. This group of resuscitated PTE patients has a bleak prognosis [5]. The question of fibrinolytic effect in PTE patients with cardiac arrest has been an important topic and a challenging task for years [7].

Although thrombolysis can save patients who either suffer coronary or pulmonary artery thrombosis, the systemic fibrinolytic administration to all patients with cardiac arrest, does not appear to be appropriate. Both, the unique Thrombolysis in Cardiac Arrest (TROICA) trial and a meta-analysis confirm this [5]. Even though the quality of the evidence for fibrinolysis is considered weak, all the guidelines recommend that

adults with suspected or proven PTE are considered candidates in case of cardiac arrest. The list includes the American [9], the European [3], the English [10] and the Australian & New Zealand guidelines [8]. The European guidelines recommend *pre-hospital* application of fibrinolytic therapy for PTE patients who have been resuscitated out of hospital [3].

There have been reports about PTE patients with cardiac arrest treated successfully using each of the available fibrinolytics. Furthermore, if the diagnosis had been obtained rapidly and cardiopulmonary resuscitation (CPR) had been provided appropriately, the PTE group with cardiac arrest may have a survival rate of up to 75%, as evidenced in the series of 67 patients [11]. In this group, thrombolysis can improve a return of the spontaneous circulation (ROSC) as well as in-hospital survival. Moreover, fibrinolysis in PTE patients with cardiac arrest, may diminish neurologic complications during the long-term follow-up, as found in a meta-analysis [12]. Additionally, results of the recent study suggest that *tissue-plasminogen activator* (TPA) (50 mg, i.e., “safe” or “half” dose) over 1 min can diminish right ventricle pressures and improve the survival in PTE patients with cardiac arrest and PEA (because at 22 months following the discharge, 87% of the patients were alive) [4]. If the first dose of 50 mg TPA is ineffective, a further 50 mg bolus is recommended [13]. Surprisingly, major hemorrhages have not occurred [4].

Presently, the predominantly excellent guidelines, separate PTE patients in the following manner. The 2014 European Society of Cardiology PTE guidelines recognizes 1) high; 2a) intermediate-high; 2b) intermediate-low risk; and 3) low risk [14]. The 2013 Spanish PTE guidelines cite: 1) Non-massive, or low-risk; 2) Standard risk; 3) Sub-massive, or intermediate-risk; and 4) Massive, or high-risk [15]. Today, for important new information and recommendations on thrombolysis in PTE patients with cardiac arrest, one ought to utilize only the guidelines for resuscitation. This is certainly the most appropriate place, in as much as are the guidelines for PTE. Having such information (about fibrinolysis in PTE patients with cardiac arrest) it is also the case that the PTE guidelines may improve the knowledge of the readers – it is the general rationale for writing the guidelines. Considering the prevalence, extensive morbidity and the highest mortality in PTE, it is clear that the learned recommendations for such patients with cardiac arrest ought also to be incorporated within the PTE classification, in as far as the risk stratification is considered.

This can improve and further our understanding of the PTE spectrum and consequently expand the guidance for treatment. Equally, adding the resuscitation group to PTE risk stratification scheme close to the high-risk group (patients with shock – hypotension), may enable better differentiation between the two. For example, the need for concrete, direct comparisons can become more evident: as fibrinolysis should be considered for patients in both groups, should it be TPA preferably? If so, what dose and how quickly should the administration be for resuscitation versus shock – hypotension PTE group? Unfractionated heparin (UFH) is the only concomitant parenteral anticoagulation which has been studied, but what is the optimal timing? Should the approach to UFH be the same for the resuscitation group and shock – hypotension group? Under what circumstances can fibrinolysis be recommended as a pre-hospital treatment?

Conclusion: The resuscitation group of PTE should be incorporated and separated from others in the PTE risk stratification schemes. Reasons for this are the following: the highest mortality in this group, clear distinction from other groups in the clinical presentation, the need for a special diagnostic algorithm and for the sake of the completeness of classification (risk stratification scheme). It is strongly recommended that such a critical group be included hence it cannot be afforded to ignore it within the guidelines.

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## YouTube and risky behaviors in adolescents: The “choking game”



Adolescence is a period in which many individuals experiment with risky behaviors and activities. One such activity, the “choking game,” is a strangulation activity in which pressure is applied to the neck/carotid artery to limit blood flow and oxygen, and once this pressure is released, as blood and oxygen rush back to the brain, a ‘high’ or euphoria is sometimes achieved [1]. This pressure can be achieved using ligatures such as belts or neckties, or by utilizing another person’s hands. Estimated participation rates in the choking game range anywhere from approximately 6% to 12% for adolescents, resulting in a CDC estimate of as many as 100 deaths occurring annually [2,3]. Although there is evidence suggesting the choking game has been practiced for years, the creation of YouTube in 2005 enabled dissemination of recorded videos of people