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GESTÃO DO DESCONFORTO CAUSADO PELA IMOBILIZAÇÃO EM VÍTIMAS DE TRAUMA - MITIGAR UM "MAL NECESSÁRIO"

MANAGING DISCOMFORT CAUSED BY IMMOBILIZATION IN TRAUMA VICTIMS - MITIGATING A "NECESSARY EVIL"

GESTIÓN DE LAS MOLESTIAS CAUSADAS POR LA INMOVILIZACIÓN EN VÍCTIMAS DE TRAUMATISMOS: MITIGAR UN "MAL NECESARIO"

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EDITORIAL

MANAGING DISCOMFORT CAUSED BY IMMOBILIZATION IN TRAUMA VICTIMS - MITIGATING A "NECESSARY EVIL"

Trauma is an important cause of mortality and morbidity, a highly prevalent and impactful phenomenon, which requires a complex response due to its multiform clinical presentation (Mota, Cunha, et al., 2021). Added to this important immediate hemodynamic repercussion, the severity of which often leads to hypovolemic shock and death, intense acute pain (greater than 7 on a scale of 0 to 10) in more than 40% of victims (Mota, Santos, et al. al., 2021a), discomfort caused by cold greater than 5 (on a scale from 0 to 10) in more than 17% (Mota, Santos, et al., 2021b) and other manifestations of discomfort that still do not gather consensus and attention by part of the academic community. One emerges, whose etiology is entirely due to the interventions provided by rescue teams - the discomfort caused by immobilization.

Immobilization aims to reduce the victim's movements, ensuring the alignment of anatomical structures with the suspected injury, to minimize the risk of injuries secondary to the primary trauma mechanism (Camargo-Arenas et al., 2019; Figueira et al., 2021), while contributing to the incidence of some level of discomfort. This type of discomfort has not been explored and no studies investigating its nosological etiology have been found, and the idea remains that since immobilization is an essential intervention, the benefits outweigh the risks, namely pressure injuries, elevated intracranial pressures, and pain (Bruijns et al., 2013; Holla et al., 2017). In other words, less eloquent but giving body and title to this manuscript, immobilization of trauma victims is a "necessary evil."

Pain is a subjective, complex, and multidimensional concept, an unpleasant sensory experience associated with actual or potential tissue damage (International Association for the Study of Pain, 2006), a consequence of pathological and/or traumatic events; however, it is recurrently reported because of invasive and non-invasive clinical interventions (Sobieraj et al., 2020), such as immobilization in trauma victims. Accepting the discomfort caused by immobilization as a manifestation of acute pain in trauma may result not only in a conceptual error, but also in the inability to treat this discomfort because it is not possible to completely suppress its true cause, which is immobilization. When the mechanism of injury creates a high level of suspicion of head or spinal injury, immobilization is recommended. Altered state of consciousness and neurological deficit are also indicators that spinal immobilization should be performed (Feller et al., 2022).

The academic and clinical community has the opportunity to review and restructure the general approach to trauma victims, naturally assuming the undeniable relevance of immobilization as a technique widely administered in the pre-hospital context and as a prophylactic measure of secondary damage but being aware that it is itself responsible for a particular discomfort that, when confused with pain, ends up being completely ignored. To disassociate acute pain from the discomfort caused by immobilization is not to devalue and/or underestimate pain and its importance in these victims, it is, on the other hand, to try to improve the ability to diagnose the different discomforts that these victims are exposed to and often suffer from, and thus improve the ability to treat them. Thus, the solution that we believe to be the most appropriate, and assuming the discomfort caused by immobilization as a unique nosological entity, is, firstly, the creation of specific monitoring instruments (scales) for this discomfort, secondly, the review of immobilization techniques with regard to their application, applicability, and effectiveness, and finally, the development of new pharmacological and non-pharmacological options for the management and treatment of discomfort caused by immobilization. The use of a standardized and validated monitoring instrument to assess and record the discomfort caused by immobilization would be a quality indicator of pre-hospital care, as it would allow (1) monitoring and (2) obtaining a real understanding of the evolution of discomfort according to the interventions administered.

To achieve a better quality of care in the pre-hospital environment and improve the well-being of trauma victims, discomfort caused by immobilization must receive special attention both in academia, by encouraging applied experimental research, and in clinical practice, by implementing safe procedures based on strongly recommended evidence.

REFERENCES

Bruijns, S. R., Guly, H. R., & Wallis, L. A. (2013). Effect of spinal immobilization on heart rate, blood pressure and respiratory rate. *Prehosp Disaster Med*, *28*(3), 210-214. https://doi.org/10.1017/S1049023X13000034

Camargo-Arenas, J. F., Aguilar-Mejía, J. A., & Quevedo-Florez, L. A. (2019). Aproximación a la evaluación y manejo del trauma en pediatría. *Revista Mexicana de Pediatria*, *86*, 26-35.

Feller, R., Furin, M., Alloush, A., & Reynolds, C. (2022). EMS Immobilization Techniques. In *StatPearls*. https://www.ncbi.nlm.nih.gov/pubmed/29083568

Figueira, S., Mota, M., & Dias, A. M. (2021). Técnicas de imobilização executadas no pré-hospitalar no trauma pediátrico – protocolo de revisão scoping. *Millenium*(2(ed espec nº9)), 161-170. https://doi.org/https://doi.org/10.29352/mill029e.25338

Mota, M., Cunha, M., & Santos, M. R. (2022). Editorial - Managing discomfort caused by immobilization in trauma victims - mitigating a "necessary evil. *Millenium - Journal of Education, Technologies, and Health*, 2(ed espec nº11), e28829. **DOI:** https://doi.org/10.29352/mill0211e.28829

Holla, M., Driessen, M., Eggen, T. G. E., Daanen, R. A., Hosman, A. J. F., Verdonschot, N., & Hannink, G. (2017). A New Craniothoracic Mattress for Immobilization of the Cervical Spine in Critical Care Patients. *J Trauma Nurs*, *24*(4), 261-269. https://doi.org/10.1097/JTN.0000000000000302

International Association for the Study of Pain, I. (2006). *Pain terminology*. IASP.

Mota, M., Cunha, M., Santos, E., Figueiredo, A., Silva, M., Campos, R., & Santos, M. R. (2021). Effectiveness of prehospital nursing interventions in stabilizing trauma victims. *Revista de Enfermagem Referência*(5(6), e20114). https://doi.org/10.12707/RV20114

Mota, M., Santos, M. R., Santos, E., Henriques, C., Matos, A., & Cunha, M. (2021a). Pre-hospital treatment of acute trauma pain: An observational study. *Acta Paulista de Enfermagem*, *35:eAPE039001834*. https://doi.org/10.37689/acta-ape/2022AO0018349

Mota, M., Santos, M. R., Santos, E. J. F., Henriques, C., Matos, A., & Cunha, M. (2021b). Trauma Prehospital Hypothermia Prevention and Treatment: An Observational Study. *J Trauma Nurs*, *28*(3), 194-202. https://doi.org/10.1097/JTN.0000000000000583

Sobieraj, D. M., Martinez, B. K., Miao, B., Cicero, M. X., Kamin, R. A., Hernandez, A. V., Coleman, C. I., & Baker, W. L. (2020). Comparative Effectiveness of Analgesics to Reduce Acute Pain in the Prehospital Setting. *Prehosp Emerg Care*, *24*(2), 163-174. https://doi.org/10.1080/10903127.2019.1657213