



Letter to the Editor / Editöre Mektup

Mangled Extremity Severity Scoring is still valid for in-hospital amputation with a higher cut-off value

Mangled Ekstremité Şiddet Skoru daha yüksek bir kestirim değeri ile halen hastane-içi amputasyon için geçerlidir

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Dear Editor,

We read the article of Özçınar et al.^[1] with great interest in which, nine of 12 (75%) upper extremities with crush injury-related vascular compromise were salvaged with saphenous vein interposition, although the Mangled Extremity Severity Score (MESS) of all patients was ≥ 7 . However, although fasciotomy was performed in 75% of the patients, the rate of patients who received venous reconstruction was not presented in the article.

The MESS is probably one of the most common scoring system used which was, in great part, due to the assertion of the predicted amputation rate with 100% accuracy in patients with the MESS ≥ 7 .^[2] On the other hand, the MESS was originally developed in 1990 and, in 2015, Johansen et al.^[3] (recently called for a reboot through stating “the MESS exceeded its best-by date”). Although the principals underlying the MESS remain as relevant as before, the authors mentioned their concern about the clinical application of the MESS of 7 as a threshold for amputation which fails to reflect the current leading-edge vascular trauma care.

We recently reported our experience of combat-related vascular injury in which the risk factors associated with amputation was retrospectively evaluated.^[4] The patient cohort comprised both upper and lower extremity injuries. There were no amputations with the MESS of ≤ 9 , increasing proportions of amputations at 10 and 11, with a level of 12 leading to 100% amputation rate. Additionally, the limb salvage rate in 52 patients (58%) with the MESS ≥ 7 was 60%. Although the duration of ischemia, which is the most important predictive factor of amputation when surpassing the golden six hours,^[2,4] was not mentioned in the Özçınar et al.’s^[1] cohort, it was not thought to be longer than six hours. We highly believe our achievement of these comparably high salvage ratio at the cut-off value of 9 was utterly related to the utilization of a temporary vascular shunt (TVS), insistence of venous repair and performing fasciotomy.

In conclusion, quantification of the severity of injury and accordingly deciding whether to revascularize or amputate the limb in a hemodynamically unstable casualty can be difficult. More than expected rate of extremities which were doomed to amputation with the MESS between 7 and 9 seem to benefit from revascularization with attentive pre- and perioperative evaluation and initiation of reperfusion at once with the use of TVS. Although the MESS is an adjunct to clinical judgment, it should not be a substitute for a careful assessment of what is reasonable and appropriate for the patients’ recovery. In our opinion, the evaluation of the MESS in the current vascular surgical practice worth considering and merits further prospectively designed investigations.

Declaration of conflicting interests

The authors declared no conflicts of interest with respect to the authorship and/or publication of this article.

Funding

The authors received no financial support for the research and/or authorship of this article.

Received: March 09, 2018 Accepted: November 09, 2018

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Cite this article as:

Şişli E, Hasde Aİ. Mangled Extremity Severity Scoring is still valid for in-hospital amputation with a higher cut-off value. Türk Gogus Kalp Dama 2019;27(1):132-133

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Author Reply

Dear Editor,

Firstly, we thank for the authors' consideration. They have mentioned the role of Mangled Extremity Severity Score (MESS) in the current vascular surgical practice. As the authors briefly described, the clinical application of MESS may have failed to reflect the salvage

rate of the extremities. Furthermore, we especially focused on upper extremity injuries and evaluated the histopathological changes of the vascular arterial component of the crush injury.^[1]

In our daily practice, we believe that each injured extremity has to be evaluated without the borders of scoring system. We attempted to put a different point of view to make a precise clinical judgement. The injured extremities, particularly the upper limbs, may have greater chance of salvage than lower limbs. The careful examination, timely manner interventions, and tireless repetitive efforts for continuous perfusion may be the key factors for the salvage of the upper extremity.

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