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Third Consensus meeting: damage control "extremities" by ESTES, 12th September, 2019, Zurich, Switzerland

Participants: H.-C. Pape, R. Pfeifer, R. Komadina, R. Peralta, G. Krobushkin, L. Fattori, D. Mariani, S. Halvachizadeh, G. Osterhoff, G. Volpin, F. Pittance, L. Leenen (Webex)

1. Acceptance of Minutes from the second Consensus Meeting Prague, 2019 (all are in agreement)
2. Literature update and current scoring systems for Polytrauma patients (Halvachizadeh). There is a new comparison about the existing scoring systems, comparing the following scores: CGS, mCGS, EAC and PTGS. Dr. Halvachizadeh documents that according to his data base analysis the EAC protocol is only a prognostic indicator in the early stages of injury, while the inclusion of more parameters than the acid base changes allows for prediction of later complications.

Also, since the meeting, two more publications have become available:

Damage control orthopedics and decreased in-hospital mortality: A nationwide study. Yamamoto R, Udagawa K, Nishida Y, Ono S, Sasaki J. *Injury*. 2019 Sep 20. pii: S0020-1383(19)30548-0. doi: 10.1016/j.injury.2019.09.028. [Epub ahead of print] PMID: 31591006

Timing of major fracture care in polytrauma patients - An update on principles, parameters and strategies for 2020. Pape HC, Halvachizadeh S, Leenen L, Velmahos GD, Buckley R, Giannoudis PV. *Injury*. 2019 Sep 13. pii: S0020-1383(19)30538-8. doi: 10.1016/j.injury.2019.09.021. [Epub ahead of print]. PMID:31558277

3. General Discussion:
It is discussed whether patients with TBI should be separately analysed (Peralta); suggestion to analyse patients with moderate-severe TBI, or TBI with intracranial haemorrhage differently.
4. Discussion of definitions for Damage control surgery: The Following terms were discussed, as suggested during and after the March meeting:
 - a. **Damage control surgery (DCS)** => a staged approach to the treatment of critically injured trauma patients (any surgical procedure)
 - b. **Damage control orthopaedics (DCO)** => limited early surgical intervention for stabilization of musculoskeletal injuries with special focus on the unstable polytrauma patient.
 - c. Damage control extremities (DCE) => (under discussion) as follows

L. Leenen points out that it may be dangerous to use the same denominator for **isolated extremities** - external fixation



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The group discusses that the term “Damage control” should be reserved for **Polytrauma patients**.

Unfortunately, within the last 2 decades, the term “damage control” has been used for many stable patients where soft tissue issues or vascular injuries, or even in isolated fractures. None of this makes sense to the group, all agree that DC isolated fractures require a different terminology.

All agrees, that people might get confused when DC is used in patients with systemic problems and patients with local problems. DC is reserved for polytrauma patients with systemic problems. After a discussion of several alternatives the consensus groups decided on using the following term for isolated extremity injuries that are temporized due to soft tissue or other conditions:

MUSkulo-Skeletal Temporal Surgery (MUST-Surgery).

5. Presentation: DCO Concept in polytrauma treatment (Volpin)
6. Options: analysis / validation TARN (Hasler)
- Definition of the next steps:
 - Manuscript preparation continues
 - Meeting during the next Conference of meeting or WebEx

Hans-Christoph Pape and Roman Pfeifer