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EDITORIAL

Focus on chest trauma

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In this issue of the *European Journal of Trauma and Emergency Surgery* emphasis is laid on thoracic trauma. Stil 25% of all trauma deaths are to be attributed to thoracic trauma. Thoracic trauma ranges from the simple rib fractures in the elderly to the emergency thoracotomy in the ED and even in the streets of our major cities, a much debated subject.

Nevertheless thoracic trauma is treated only with considerable therapeutic nihilism up to now. Therefore, in this issue a most welcomed series of articles is compiled in which several aspects of thoracic trauma are detailed. These articles in general give the trauma surgeon new ammunition to approach these problems less expectantly, for the benefit of the patient.

As repair of rib fractures is much debated over the years (see below), the intensive care treatment of thoracic trauma patients, as a part of multiple trauma, has been discussed only sparsely. In this issue Wutzler and co workers [1] from Frankfurt, Germany, evaluate kinetic therapy in these patients and conclude that these measures reduce pulmonary complications, the major problem in these patients.

In a comprehensive review, Schuurmans and co-workers [2] from Amsterdam (NL) review, based on a PubMed, Trip Database, and Google Scholar search, critically the available evidence on rib fixation, based on randomized-controlled trials, which was not done before. They conclude that fixation of ribs showed a significant lower incidence of pneumonia, although mortality rate was not different from non-operative treatment. Moreover they conclude that this procedure not only improves patient's outcome, but also demonstrates lower treatment costs.

In line with these findings, Schulz-Drost and his team [3] from Erlangen, Germany, used more minimal techniques to stabilize the flail chest. Only the essential parts were stabilized throughout minimal incisions with a special retractor, developed for this purpose, in intelligently chosen strategic places on the thoracic cage. Thus to minimize the morbidity from extensive approaches sometimes needed to stabilize the thoracic cage.

Scott et al. [4] evaluate in a retrospective overview the results of treatment of a retained hemothorax after traumatic hemo- and pneumothorax over a 5 year period. A relation with early intubation and higher ISS was associated with the risk of developing a retained hemothorax. The authors call for an earlier identification and intervention in these patients.

Acknowledging the problem of additional injuries in the thoracic cavity Fraser and his team [5] from London evaluated a series of patients undergoing rib fixation. Based on their findings their practice changed considerably, where they added early assessment of the thoracic cavity with video assistance to optimize peri-operative management.

In summary, this overview of current evidence brings support to reevaluate the treatment of thoracic trauma in your trauma departments…for the benefit of your patients.

Luke Leenen.

Compliance with ethical standards

The author comply with the ethical guidelines for authorship and publishing in the *European Journal of Trauma and Emergency Surgery*. This article does not contain any studies with human or animal subjects performed by the authors.

Conflict of interest Luke PH Leenen declares no conflict of interest in relation to this work.

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References

1. Wutzler S, Sturm K, Lustenberger T et al. Kinetic therapy in multiple trauma patients with severe thoracic trauma: a treatment option to reduce ventilator time and improve outcome. Eur J Trauma Emerg Surg. 2016. doi:10.1007/s00068-016-0692-3 (**this issue**).
2. Schuurmans J, Goslings JC, Schepers T. Operative management versus non-operative management of rib fractures in flail chest injuries: a systematic review. Eur J Trauma Emerg Surg. 2016. doi:10.1007/s00068-016-0721-2 (**this issue**).
3. Schulz-Drost S, Grupp S, Pachowsky M, et al. Stabilization of flail chest injuries: minimized approach techniques to treat the core of instability. Eur J Trauma Emerg Surg. 2016. doi:10.1007/s00068-016-0664-7 (**this issue**).
4. Scott MF, Khodaverdian RA, Shaheen JL, et al. Predictors of retained hemothorax after trauma and impact on patient outcomes. Eur J Trauma Emerg Surg. 2015. doi:10.1007/s00068-015-0604-y (**this issue**).
5. Fraser SF, Tan C, Kuppusamy MK, et al. The role of a video-assisted thoracic approach for rib fixation. Eur J Trauma Emerg Surg. 2016. doi:10.1007/s00068-016-0641-1 (**this issue**).