

Abdominal Trauma Surgery: From Lejars to EBM

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The approach to emergency abdominal surgery has undergone a profound change primarily because of the change of types of diseases treated and the widespread use of diagnostic methods, such as ultrasound and contrast-enhanced computed tomography. In particular, these two investigative methods have allowed a more accurate preoperative diagnosis, thus avoiding many unnecessary exploratory operations, and leading to conservative treatment of many patients with abdominal trauma

The initial milestone in emergency surgery was the first edition of the Treatise on Emergency Surgery published by Felix Lejars (1863-1932) at the turn of the 19th century [1]. This Treatise, source of numerous editions in different languages, represented one of the earliest efforts at systematization of emergency surgery and the only reference text for surgeons throughout the early years of the twentieth century

About half a century later, Henri Mondor published his treatise of emergency abdominal surgery ("Les diagnostics urgents de l'abdomen") replacing the then obsolete Lejars and became the second milestone in the history of emergency surgery [2]. Later, the introduction of new diagnostic methods (ultrasound and CT) rendered much of Mondor's contributions obsolete. While both Lejars' and then Mondor's works, monographs written by a single author, were the standard abdominal emergency surgery for almost a century, Feliciano, Moore and Mattox published their landmark multiauthor textbook on Trauma in 1980 which, currently in its 7th edition as of 2012, is the current gold standard in the treatment of trauma [3,4]

1992 marks the introduction of Evidence-based medicine (EBM), which has dramatically reduced the importance of expert opinion (level 5 according to the Oxford Centre for Evidence-based Medicine (REF) and instead considers randomized controlled trials (RCT) and systematic reviews the new gold standard. RCT are the most reliable study design to obtain experimental evidence on the effectiveness of health interventions (including medications); notwithstanding, many problems arise when their results have to be adapted to the individual patient [5,6]

While there are numerous studies of good quality in many areas

of medicine, many questions about the effectiveness of diagnostic and therapeutic interventions remain unanswered with sound, high level evidence. In the lack of quality EBM, expert opinion continues to sway surgeons' decisions.

Performing RCT in trauma poses several issues, mainly organizational but also ethical, but they can, and have to be done [7]. Clinical research in non trauma emergency surgery is set in a similar background.

We recently performed two systematic reviews on the treatment of abdominal trauma (Damage Control Surgery and Non Operating Management of splenic trauma): the lack of controlled clinical trials (randomized or not) of good quality did not allow to draw any meaningful conclusions, and key expert opinion remains [8,9].

A plea is to be made to encourage all surgeons involved in emergency surgery, for trauma or non trauma, to take up their pilgrim's staff and produce high quality RCT, the only way to move forward more than 110 years after Lejars' hallmark effort.

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