

Focus on acute care surgery

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This issue of Focus on Acute Care Surgery brings to our attention different topics of interest encompassing diagnosis, management and outcome of acute abdominal conditions. Karagöz et al. [1] report on the ability of emergency physicians (EPs) to diagnose and score acute pancreatitis (AP) on computed tomography. Contrast-enhanced CT (CECT) is considered as the gold standard imaging modality in the evaluation of patients with AP, and early diagnosis and risk stratification is relevant. In this retrospective study conducted at an academic center in Turkey three third-year residents in emergency medicine were given 3 h of education on abdominal CT interpretation and modified CT severity index (MCTSI) in AP. Their diagnostic performance was calculated using radiologist's reports as the criterion standard, by means of Kappa concordance and intraclass correlation coefficients. The study found that, whenever a radiologist report is not available, especially in nightshifts, EPs providing healthcare in EDs are able to provide this risk stratification in a reliable way after a short tutorial.

Seow et al. [2] study the factors predicting need for gastric resection in the management of perforated peptic ulcer (PPU). Emergency gastric resection is fraught with high morbidity and mortality in this context, although it is needed in only about 10% of PPU. Although retrospective in nature, the study includes a large series of patients, and most of them were repaired with an omental patch (PR). Surprisingly enough, very few were done by laparoscopic

approach. On multivariate analysis, only low serum albumin predicted need for gastric resection, and mortality of resected patients was 24.2%. They argue that, while PR has low morbidity and mortality, it is not universally feasible and a gastric resection is done to reduce morbidity and mortality. However, their results show the opposite to be true, and they propose a multicenter randomized trial of PR and gastric resection for large gastric ulcers to confirm if routine practice of gastric resection is appropriate. Meanwhile, they report that their results have prompted them to consider operative strategies which avoid resection in patients with large gastric ulcers without underlying malignancy.

Pedersen and co-workers [3] present a retrospective study on the 30-, 90-, and 1-year mortality in a consecutive group of 380 Danish patients undergoing emergency colonic surgery in a 4-year period with 365-day follow-up. They also aim at identifying possible risk factors associated with mortality. The mortality rates were 21, 30, and 41%, respectively, and overall 30-day complication rate was 63%, with cardiopulmonary complications leading to most postoperative deaths. Forty-eight (91%) of the in-hospital mortalities were caused by medical complications. They argue that in most studies of emergency surgery mortality rates are reported as 30-day or in-hospital, and the significantly higher 90-day and 1-year mortality rates in their study suggest that 30 days is not a sufficient period to evaluate the risk of mortality after emergency colonic surgery. Patient delay, comorbidities, and frailty probably play a key role in outcome, but are not modifiable factors in emergency situations. Focus in future treatment strategies should be on modifiable factors like the benefits of the logical damage control tactics, and the likely protective roles of statin treatment and a ventilation strategy including low tidal volume and low PEEP without recruitment maneuvers.

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Finally, Sanchez and co-workers [4] present a rather large series of patients with acute bleeding from postoperative pseudoaneurysms (PA) following liver and pancreatobiliary surgery. These postoperative PA are rare events, and usually there is a previous history of an intra- or postoperative complication during a cholecystectomy or biliary-enteric anastomosis. Nevertheless, as the authors found out in one-third of their patients, that complication may go unrecognized or unreported. The most frequent clinical manifestation was acute bleeding in the form of hemoperitoneum, GI bleeding or hemobilia. Three patients (25%) were asymptomatic, though, and were diagnosed on a follow-up CT scan. Contrary to the intrahepatic location of PA following trauma, postoperative PA are typically extrahepatic, and the most common artery involved was the right hepatic artery. An initial endovascular approach was attempted in all hemodynamically stable patients, but still a laparotomy was required in two-thirds of them.

In summary, four very different topics in Acute Care Surgery which should increase our awareness of the large scope of this specialty, and also help us focus on areas of clinical research that still deserve our attention and commitment as emergency surgeons.

Compliance with ethical standards

Ethical approval F. J. Turégano complies with the ethical guidelines for authorship and publishing in the *European Journal of Trauma and Emergency Surgery*.

Statement of human and animal rights This article does not contain any studies with human or animal subjects performed by the authors.

Conflict of interest F. J. Turégano declares no conflict of interest in relation to this work.

References

1. Karagöz A, Ünlüer EE, Oyar O, et al. The ability of emergency physicians to diagnose and score acute pancreatitis on computed tomography. *Eur J Trauma Emerg Surg*. 2017. doi:[10.1007/s00068-016-0743-9](https://doi.org/10.1007/s00068-016-0743-9).
2. Seow JG, Lim YR, Shelat VG. Low serum albumin may predict the need for gastric resection in patients with perforated peptic ulcer. *Eur J Trauma Emerg Surg*. 2017. doi:[10.1007/s00068-016-0669-2](https://doi.org/10.1007/s00068-016-0669-2).
3. Pedersen T, Watt SK, Tolstrup MB, Gögenur I. 30-Day, 90-day and 1-year mortality after emergency colonic surgery. *Eur J Trauma Emerg Surg*. 2017. doi:[10.1007/s00068-016-0742-x](https://doi.org/10.1007/s00068-016-0742-x).
4. Sanchez Arteaga A, Orue-Echebarria MI, Zarain L, et al. Acute bleeding from pseudoaneurysms following liver and pancreatobiliary surgery. *Eur J Trauma Emerg Surg*. 2017. doi:[10.1007/s00068-016-0672-7](https://doi.org/10.1007/s00068-016-0672-7).