COMMENT

The emerging predictive role of C-reactive protein after ventral hernia repair with mesh

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Dear Editor,

We have read with interest the retrospective analysis by Pochhammer et al. [1]. The authors reported a series of 373 patients who underwent conventional ventral hernioplasty with mesh augmentation in a referral hernia center. Postoperative C-reactive protein (CRP) measurement was consecutively performed in all patients during the hospital course. Prevalence of postoperative infectious complications (ICs) was 13.7% ($n = 51$). Authors reported positive predictive values (PPV) and negative predictive values (NPV) at different postoperative days (POD). PPVs and NPVs for POD 2/3 and POD were 0.29–0.46 and 1.00–0.93, respectively. The authors concluded that postoperative serum CRP allows for early prediction of the postoperative course with low CRP values being associated with reduced risk of ICs.

We congratulate the authors for the idea to investigate the postoperative CRP predictive value in the diagnosis of ICs after mesh-reinforced ventral hernioplasty. This paper strengthens and broadens this concept previously investigated in other general surgery settings [2–4]. After carefully reading, CRP seems to be a useful biomarker to rule out postoperative ICs. This is supported by the estimated low POD 2/3 and POD 5/6 PPVs (0.29–0.46, respectively) and high NPVs (1.00 and 0.93, respectively). It is true that PPV and NPV are influenced by the disease prevalence (prior probability) but having such high estimated NPVs (> 0.90), results are less affected by disease prevalence.

We thank the authors for their remarkable work and for having added further empirical evidence that confirms the emerging role of postoperative CRP predictive values. Supported by previous published evidence and authors' data,

CRP may have a diagnostic role with a high level of confidence. In conclusion, CRP should not be interpreted as marker to diagnose but rather as a useful tool to rule out a diagnosis. However, postoperative CRP should not be considered a panacea, but in conjunction with reassuring clinical signs it may be an additional arrow in each surgeon's quiver.

Conflict of interest AA, GB, and DB declare no conflicts of interest.

Ethical approval Approval from the Institutional review board was not required for this study.

Human and animal right This article does not contain any studies with human participants or animals performed by any of the authors.

Informed consent For this type of study formal consent is not required.

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