

## Diagnostic accuracy of C-reactive protein and white blood cell counts in the early detection of inflammatory complications after open resection of colorectal cancer: a retrospective study of 1,187 patients

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Dear Editor:

We would like to thank Dr. Ortega-Deballon et al. for their interesting remarks about our publication and congratulate them for the excellent study published in the *World Journal of Surgery*. We have to admit that including his study in our discussion would have augmented our work.

We fully agree that C-reactive protein (CRP) is a valuable marker for postoperative septic complications after colorectal surgery. Like Dr. Ortega-Deballon, we were also interested in “tallying” the results of the various diagnostic studies and performed a diagnostic meta-analysis, which is accepted for publication by *Annals of Surgery*. We would like to take this opportunity to thank Dr. Ortega-Deballon as well as other authors for contributing unpublished data enabling us to perform this analysis.

In the first part of the comment, Dr. Ortega-Deballon et al. compare sensitivities obtained in three studies. Although the results of these studies are quite comparable, the sensitivities mentioned by Dr. Ortega-Deballon differ in time-point and outcome (POD 4 versus POD 3, any septic complications versus intraabdominal infections versus anastomotic leaks). Thus, these sensitivities are not necessarily comparable.

We fully agree with Dr. Ortega-Deballon et al. that the accuracy of CRP is better than the white blood cell count for the prediction of septic complications. However, he did not provide a statistical measure for the reliability of this difference (like  $p$  value or confidence intervals). In our study, the accuracy of CRP (measured by the AUC) was statistically significantly better on POD 2 to 4 ( $p < 0.05$ ), but not on POD 5 ( $p = 0.415$ ). We limited the data analysis until POD 5 because we were interested in the prognostic value of CRP to anticipate the course. Due to the retrospective design, we were not able to reliably assess the timing of the onset or discovery of postoperative complications.

In contrast to Dr. Ortega-Deballon, we still believe that the detection rate for complications might be higher in our study due to the long hospital stay as a particularity of the Swiss health system. We hypothesize that patients suffering a complication after early discharge may visit their general practitioner or another hospital. The mentioned prospective multicentric trial sounds quite interesting and we are looking forward to see the results. Unfortunately, we could not find an entry of this study in the usual international trial registries, thus we cannot comment much about it.

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