Do Normal Clinical Signs and Laboratory Tests Exclude Anastomotic Leakage?

Zhouqiao Wu, MD, Daams Freek, MD, Johan Lange, MD, PhD
Rotterdam, The Netherlands

We read with interest the article entitled “Abnormal Vital Signs Are Common after Bowel Resection and Do Not Predict Anastomotic Leak” from Erb and colleagues, who reported that even sustained aberrant vital signs and leukocytosis might not suggest an anastomotic leakage (AL) or other severe complication.

To date, diagnosis of clinical manifestations or laboratory tests with regard to AL are not yet reliable. To confirm the occurrence of AL, radiologic examinations are required in most cases. However, because decision making after radiologic examinations still depends on the surgeon’s awareness based on clinical manifestations and laboratory tests, diagnosis of AL is eventually challenging and influenced by substantial human-related factors. The data from Erb and colleagues provide direct evidence and confirm the difficulties in diagnosing anastomotic AL or other complications.

Despite the poor positive predictive value of white blood cell counts, we found that another frequently used postoperative biomarker, C-reactive protein, showed promising diagnostic value in excluding patients without AL. This was supported by the meta-analysis performed by Singh and colleagues, with a negative predictive value of 0.97. These findings, together with the data from Erb and colleagues, raised a new question: If vital signs and white blood cell counts have limited value to predict a leakage or other complication, can they exclude one?

In the study, Erb and colleagues defined the reference interval of the tests in a clear way and analyzed their positive predictive value. We believe additional analysis by comparing the leakage rate in patients with abnormal signs with those with no abnormality will provide information of great importance to answer these question. Possibly, a combination of 2 or more parameters would yield a high negative predictive value, or at least provide a high index of suspicion of AL. This would be in line with the study by van Dulk and colleagues, who developed a leakage score based on clinical and laboratory findings identifying patients with a higher risk of AL. In addition, the change in data analysis methodology from nested case-control design to retrospective cohort design would also increase the level of evidence of the study. We will sincerely appreciate the authors’ efforts if the supplementary analysis can be performed.

We would like to congratulate the authors for their interesting and important findings, and look forward to their reply.

REFERENCES

Disclosure Information: Nothing to disclose.
Dr Wu’s salary for his PhD fellowship is paid by the Chinese Scholarship Council.

Gibbon Fulfilled

Noel H Kleppel, MD, FACS
Brooklyn, NY

I cannot tell you how enthralled I was by Dr Bartlett’s article on Gibbon Fulfilled. Although I attended the Washington meeting in October, I was unable to attend this talk. In reading the text of the article, I was taken back many years to a bus ride during an American College of Surgeons’ meeting when my seat mate was Dr Francis Moore. He left me with a quote that I have never forgotten and that I have passed on to many of the 3,000 or so surgeons and residents I have had the privilege of interacting with in my 50 years on the State University of New York surgical faculty.

Dr Moore said “Whatever else a surgeon is, he is an internist and something more, not something less.” Too many of our current trainees and younger surgeons forget that they are physicians and only then also surgeons.