imperfect tool for controlling for case mix in combat injury because it may underestimate complex battlefield wounds,1 and even more imperfect is the Abbreviated Injury Scale (AIS), with even more than 2000 codes, on which the ISS is based. Recognizing this, a group of military surgeons convened to create AIS 2005-Military2 (AIS 2005.mil, since updated to AIS 2008.mil) in an effort to compensate for the inability to code large soft-tissue and complex multisystem injuries. This provided some improvement but was still inadequate, and after many years of tri-service efforts, the Military Combat Injury Scale and the Military Functional Incapacity Scale were created in 2013.3 The Military Combat Injury Scale is simpler, with only 269 codes, and it has been extensively validated on combat data; however, AIS 2005.mil and ISS were used in our study4 because they were the only consistently used tools available. The coding was performed by a small group of individuals, but the uniformity of the shortcomings obviated extensive recoding of a large number of cases. Numerous other publications, including many we cited, have been burdened with the same frailty, but the point is well taken.

The second point regarding granularity and the influence of explosive vs high-kinetic gunshot injury is of interest but does not necessarily comport with our understanding of wounds from improvised explosive devices gleaned from a review of thousands of records in our survivor and nonsurvivor patient data sets.4 The increased use of improvised explosive devices referred to by Lt Col Reade was motivated by the effectiveness of these devices. His hypothesis certainly merits testing, but it is more likely that the severity is underrepresented by the ISS because the ISS does not accommodate multiple severe organ injuries in 1 body area. Thus, our “lives saved” would be minimalistic, not optimistic. Likewise, other confounding variables such as damage control resuscitation and changing tactics, techniques, and procedures by both coalition and enemy forces merit more detailed exploration. Examples were clearly seen with the pelvic/perineal injury spikes that were addressed by changing tactics and improving personal protective equipment by including pelvic body armor.

The past 14 years of combat experience have provided an extraordinary learning experience in clinical care; in the documentation of the complexity, severity, and outcomes of injuries; and in the use of data and statistics for research, training, resources, and planning. Inevitably, longitudinal studies such as ours reflect not only initial shortcomings but advances in lessons learned if we are to make valid comparisons. The fact that it has taken more than 40 years to document the validity of the “golden hour” concept is a testament to the complexity of this type of acute resuscitation research, in which control for confusing variables and severity is extraordinarily challenging. In short, there is much work yet to be done, but we feel that our overarching conclusions are still firmly based and should be stated as such.

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Computed Tomography and Ventral Hernia Recurrence

To the Editor Dr Holihan and colleagues1 have suggested that high interobserver variability limited the reliability of computed tomographic scans in diagnosing ventral hernia recurrence. We have repeated the baseline computed tomographic scan with a limited scan and with the patient performing the Valsalva maneuver. Any ventral wall abnormalities will be exaggerated, but mesh, for example, will not be seen to “give.”

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In Reply We appreciate the comments and insight Dr Aanning shared regarding our study.1 Dr Aanning recommended repeating the baseline computed tomographic (CT) scan with the patient performing the Valsalva maneuver. Previous studies have suggested that the Valsalva maneuver can increase confidence in the diagnosis by making clinically suspected hernias more obvious and can decrease false negatives due to hernias previously undetected on CT scans with the patient at rest.2,3 Despite this, the radiologists still had limited agreement (κ = 0.72), which suggests that they did not agree on 30% of cases. In addition, the CT scans with the patients performing the Valsalva maneuver were not correlated with the results of clinical examinations or operative findings. Although it is biologically plausible that a CT scan with the patient performing the Valsalva maneuver could improve the interobserver agreement, additional studies are needed. Furthermore, as our study demonstrates, multidisciplinary collaboration between surgeons and radiolo-
gists is necessary to optimize imaging techniques and their interpretation and to improve patient outcomes.

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