NOTE ADDED IN PROOF
Since acceptance of this manuscript, we have published an additional report describing 6- to 12-month outcomes and their correlates in a sub-set of the participants from this study.19

AUTHOR CONTRIBUTIONS
Conception of design: Octavian Adam, Christine Mac Donald, David Brody, Dennis Rivet. Donald LaBarge. Acquisition, analysis, or interpretation of data: Octavian Adam, Christine Mac Donald, Dennis Rivet, John Ritter, Todd May, Maria Barefield, Josh Duckworth, Dean Asher, Benjamin Drnkawine, Yvette Woods, Michael Connor, David Brody. Drafting of the manuscript: Octavian Adam, Christine Mac Donald, Dennis Rivet, David Brody. Critical revision of the manuscript for important intellectual content: John Ritter, Todd May, Maria Barefield, Josh Duckworth, Donald LaBarge, Dean Asher, Benjamin Drnkawine, Yvette Woods, Michael Connor. Statistical analysis: Christine Mac Donald, David Brody. Obtaining funding: David Brody. Administrative, technical, or material support: John Ritter, Maria Barefield, Dean Asher, Benjamin Drnkawine, Yvette Woods, Michael Connor. Supervision: Octavian Adam, Dennis Rivet, Todd May, Josh Duckworth. Author access to data and responsibility: Octavian Adam, Christine Mac Donald, and David Brody had full access to all the data in the study and take responsibility for the integrity of the data and the accuracy of the data analysis.

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DISCLOSURE
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REFERENCES

Comment:
Does brain DTI MRI aid diagnosis of battlefield concussion?

Traumatic brain injury (TBI) and posttraumatic stress disorder have been labeled the “signature” injuries of the wars in Afghanistan and Iraq, and the Department of Defense has invested heavily in research focused on these 2 areas. More than 327,000 TBIs, most (>82%) being mild TBIs (also known as concussions), have been sustained by active duty military service members since 2000, of which 15% occurred during deployment to a combat zone (some of the injuries were not due to combat, however).1 Concussion is a clinical diagnosis based on history; the search for reliable objective markers (serum, imaging, balance and neurocognitive testing) is highly desirable and ongoing. In 2011, Chairman of the Joint Chiefs of Staff, Admiral Michael Mullen, directed placement of MRI scanners in Afghanistan to bring standard-of-care medicine to the battlefield. An added benefit was TBI imaging research.

This well-powered study recruited military service members with blast-related concussion who otherwise had few concurrent injuries.2 A single abnormal region, added benefit was TBI imaging research.

Would 3-tesla MRI have identified additional changes? This study highlights the success of the military–civilian academic partnership to conduct battlefield research and gives hope that future studies leveraging the strengths of both are feasible.


Jack W. Tsao, MD, DPhil

From the US Navy Bureau of Medicine and Surgery, Falls Church, VA; and Uniformed Services University of the Health Sciences, Bethesda, MD.

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