LIMBIC CENC

Key Points Summary

Rowland, J. A., Stapleton-Kotloski, J., Martindale, S. L., Rogers, E., Ord, A., Godwin, D., & Taber, K. H. (2021). Alterations in the topology of functional connectomes are associated with posttraumatic stress disorder and blast-related mild traumatic brain injury in combat veterans. Journal of Neurotrauma, 10.1089/neu.2020.7450. Advance online publication. https://doi.org/10.1089/neu.2020.7450

Primary Question this Study Addresses

What is the effect of mild TBI, PTSD, and blast on the functional brain connectome metrics of combat exposed veterans of the recent wars in Iraq and Afghanistan?

Study Findings That Add to Our Knowledge

Blast-related mild TBI was more strongly related to functional brain connectome topology than non-blast related mild TBI.

Blast-related mild TBI interacted with PTSD to reduce the number of nodes, increased the average degree, and increased the connection strength in brain connectomes. Blast-related mild TBI also altered the threshold level associated with connectomes.

How Study Evidence Might Be Used in Practice

These findings demonstrate the relevance of blast-related TBI in understanding the effects of PTSD on functional brain connectomes. These alterations in brain function may be related to the increased symptom severity often seen in comorbid PTSD and mTBI.

For information on current best PTSD practice:

Resource

To access the study abstract, click here: Abstract

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