



US DEPARTMENT OF DEFENSE

BLAST INJURY RESEARCH PROGRAM COORDINATING OFFICE

Diagnostics

Imaging Cerebral Microhemorrhages in Military Service Members with Chronic TBI

Researchers at the NICoE used susceptibility-weighted MRI to detect cerebral microhemorrhages in military Service Members suffering from chronic TBI. After the imaging analysis, microhemorrhages were identified and characterized with key parameters being number, size, and magnetic susceptibility. Participants included 603 military Service Members who experienced a TBI, with cerebral microhemorrhages identified in 43 of those patients. Within those 43 patients, 585 microhemorrhages were identified. When follow-up assessments were performed, the number and qualitative assessment of the microhemorrhages improved over time. These results suggest that hemosiderin products undergo continued change after injury, during the chronic phase of TBI.