Vietnam Veterans Who Have Post-Traumatic Stress Disorder More Likely to Suffer from Autoimmune Disease

Research to be presented March 8 at annual American Psychosomatic Society meeting

NEW YORK CITY, March 5 – Male war veterans who suffer from Post-Traumatic Stress Disorder (PTSD) may be more commonly afflicted with autoimmune diseases than veterans without PTSD, according to new research by The New York Academy of Medicine. The findings will be presented on March 8 at the 61st Annual Meeting of the American Psychosomatic Society in Phoenix.

Joseph A. Boscarino, Ph.D., M.P.H., a Vietnam veteran and senior scientist in the Academy's Division of Health and Science Policy, examined medical histories of Vietnam veterans 20 years after they were discharged from the service. He used data from the Centers for Disease Control and Prevention's "Vietnam Experience Study," which assessed the health effects of Vietnam service among veterans 20 years after their discharge.

For his study, Boscarino compared the medical histories of 1,972 men who served in the U.S. Army during the Vietnam War era but did not fight in the Vietnam war ("era vets"), with the medical histories of 2,490 veterans who fought in the Vietnam war ("theater vets"). He also compared the medical histories of theater veterans who had, and did not have, PTSD.

These preliminary findings, which have not yet been published, are the first to show a link in male veterans between PTSD and autoimmune diseases (AD) such as rheumatoid arthritis, **hypothyroidism** and psoriasis. This is particularly relevant now that the nation is on the brink of war, and servicemen and women may again encounter the devastating effects of high-intensity combat exposure. This study shows that such affects can be potentially long-lasting.

"This research is significant because it is consistent with previous stress research suggesting immune and hormonal abnormalities are associated with long-term PTSD exposure," Boscarino said. "This type of systemic dysfunction can lead to a host of diseases." Boscarino's 1999 study in the Annals of Behavioral Medicine suggested that PTSD-positive Vietnam veterans were more likely to develop coronary heart disease than other veterans, for example. "This does not mean that all PTSD-positive vets will get these diseases," he noted. "But health care professionals probably need to be aware of this possible patient risk factor."

Analyzing a representative national sample of U.S. Army veterans, Boscarino measured the prevalence of both PTSD and AD among the men studied. PTSD was measured in two ways. The men were given a psychiatric interview and were classified with "current PTSD" if they met the criteria for the disorder in the past 30 days (54 men did). Some criteria for PTSD include flashbacks or nightmares of the original traumatic event, avoidance of any reminders and thoughts of the ordeal, difficulty sleeping, depression, anxiety, irritability and hyper-arousal.

In addition, men were diagnosed with "comorbid-PTSD" (124 men fit this category) if they reported higher levels of PTSD symptoms in the past six months, in addition to experiencing higher levels of depression, hysteria, paranoia and schizophrenia symptoms. A veteran was classified as having AD if he had one or more of 20 such diseases, including rheumatoid arthritis, psoriasis, multiple sclerosis, insulin-dependent diabetes, **hypothyroidism**, Graves' disease and inflammatory bowel disease. Autoimmune diseases were identified based on reported medications, hospitalizations, medical treatments and diagnoses made by physicians. The association between PTSD and autoimmune disease was then assessed, after controlling for military history, age, education, race and intelligence, as well as for history of substance abuse, cigarette smoking and anti-social personality disorders.

While no difference was found in the prevalence of autoimmune diseases between era and theater vets, theater veterans with comorbid-PTSD were more than 3 times more likely to have autoimmune disease than theater veterans without comorbid-PTSD. Specifically, 19% of men with comorbid-PTSD had an autoimmune disease, compared with 6% of the PTSD-negative men. Men with comorbid-PTSD also had biological characteristics consistent with autoimmune disease, including abnormally higher levels of T-lymphocytes and neutrophils, and lower levels of testosterone.

"Those with comorbid-PTSD represent a group of men with a high level of psychopathology and mental disturbance," Boscarino said. "In the long term, this can have a devastating effect on the body's neuroendocrine and other biological systems, putting the victim at risk for autoimmune and other diseases."

Autoimmune diseases probably affect even more Vietnam veterans in 2003 than 15 years ago, when the CDC collected the data used for this study, Boscarino said. "I would expect that the prevalence of autoimmune disease among the PTSD-positive veterans would be significantly higher if the follow-up exams were conducted today," he said. "Combat veterans should be aware of this potential link and should discuss this with their doctors if they have any concerns."

The New York Academy of Medicine is a non-profit institution founded in 1847 that is dedicated to enhancing the health of the public through research, education and advocacy, with a particular focus on urban populations, especially the disadvantaged.

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