



Journal of Medical Sciences

ISSN 1682-4474

science
alert

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Elevated Rates of 'Sarcoid-Like' Granulomatous Pulmonary Disease in World Trade Center Responders

Mount Sinai researchers coordinating the largest clinical study to date of "sarcoid-like" granulomatous pulmonary disease in World Trade Center (WTC) responders have found that the rate of the condition was increased in this group as compared to the records of pre-9/11 FDNY personnel.

The study is published online in the American Journal of Industrial Medicine.

The Mount Sinai researchers studied almost 20,000 responders who had an initial exam in the Mount Sinai World Trade Center Medical Monitoring and Treatment Program between July 2002 and September 2007. Overall rates of "sarcoid-like" granulomatous pulmonary disease were elevated and peaked with an incidence rate of 54 cases per 100,000 between the years 2003 and 2004. Previous studies of pre-9/11 FDNY personnel showed an average yearly rate of 15 cases per 100,000. In addition, patients with the disease had lung function abnormalities consistent with prior studies of WTC responders. Similar findings have also been reported by two other cohort studies, the Fire Department of New York City (Izbicki et al. 2007) and the World Trade Center Registry (Jordan HT et al. 2008).

"More than 50,000 men and women were exposed to products of combustion and particulate matter following the September 11th attacks," said the study's lead author Laura Crowley, MD, Assistant Professor, Preventive Medicine, Mount Sinai School of Medicine.

"Our findings support the hypothesis that environmental exposures generated by the destruction of the World Trade Center may cause 'sarcoid-like' granulomatous pulmonary disease. The screening and monitoring of all WTC responders, including periodic chest radiography and spirometry, must continue so that the population's medical issues may be optimally addressed by identifying and treating diseases in their earlier stages," she said.

Like sarcoidosis, "sarcoid-like" granulomatous pulmonary disease appears to be a multisystem disease that causes inflammation in one or more organs, including the lungs, skin and lymph nodes. Although the cause of "sarcoid-like" granulomatous pulmonary disease is unknown, it has been associated with multiple environmental and occupational exposures.

"The results of this study clearly supports the critical need for ongoing long-term monitoring and treatment for WTC responders," said Philip Landrigan, MD, Principal Investigator of the Mount Sinai WTC Program's Data and Coordination Center, Dean of Global Health and Chair of the Department of Preventive Medicine, Mount Sinai School of Medicine.

"Providing health care for WTC-related illnesses and disease is the least we can do, not only for this study population, but all those whose health has been affected by 9/11. Our 9/11 heroes have given so much in their endeavors to help our country when their labor was required," he said.

The World Trade Center Medical Monitoring and Treatment Program with funding from the federal government, offers free, confidential medical and mental health evaluation, long-term monitoring and treatment for eligible WTC rescue, recovery and clean-up workers, including volunteers, who responded to the Sept. 11th, 2001 terrorist attacks in NYC. Medical screening and annual medical monitoring examinations, as well as both out- and in-patient treatment services as may be needed for WTC-related medical and mental health conditions is being offered at a number of NY/NJ metro-area occupational

medicine clinical centers and nationwide. Mount Sinai Center for Occupational & Environmental Medicine, Mount Sinai School of Medicine, has taken a lead in developing the program that stands as the federal government's principal public health response to 9/11 and continues to coordinate the NY-NJ Consortium of occupational medicine providers of program services.

The Program also maintains data through two Data and Coordination Centers, one coordinated by Mount Sinai (School of Medicine) and one by the FDNY, complementing the latter agency's matching service program for current and retired NYC Fire Dept. employees. Non-identifying data is periodically pooled and analyzed across the programs to

expand the scientific understanding of health impacts resultant from WTC exposures, assure best practices of care for responders in need, and help inform future health response to such emergencies.

The Program's Mount Sinai-coordinated Consortium of Clinical Centers of Excellence have medically screened over 30,000 WTC rescue and recovery workers and volunteers in all 50 states to date, since the program kicked off in July of 2002. The Consortium has also provided over 66,000 medical monitoring exams.

Source: American Journal of Industrial Medicine, 2010; DOI: 10.1002/ajim.20924