

New details presented in outbreak in pork processing plant workers

April 17 2008

New details on the neurological illness that has affected workers at several pork processing plants will be presented at the American Academy of Neurology's 60th Anniversary Annual Meeting in Chicago, April 12–19, 2008. The information will be presented as part of the Late-Breaking Science program, designed for research of major scientific importance or interest that warrants expedited presentation.

Neurologists have identified the illness as a new disorder which causes symptoms ranging from a transverse myelitis syndrome, inflammation of the spinal cord, in one patient to mild weakness, fatigue, numbness and tingling in arms and legs. Researchers are classifying this condition as an immune polyradiculoneuropathy, (a disease of the peripheral nerves and spinal nerve roots) and it has been referred to as “progressive inflammatory neuropathy.” Details about the initial epidemiology investigation were described in an article in the Morbidity and Mortality Weekly Report on February 8.

The current presentation focuses on the clinical description of patients who worked at a Minnesota pork processing plant. Other cases associated with working at a pork processing plant have been reported in Indiana and Nebraska. All of the Minnesota cases had evidence of nerve involvement, typically affecting the legs and likely caused by an inflammatory process.

Electrodiagnostic tests showed that the patients had damage to the nerves at the root level, adjacent to the spinal cord, and at the farthest reaches

of motor nerves, near the connection with muscle. Thirteen out of 15 patients had elevated protein levels in their cerebrospinal (brain and spinal cord) fluid. Most patients had evidence of inflammation on spinal MRI examinations. All had evidence of activation of their immune systems. This was shown by a pattern of specific antibody production that has not been seen before.

“This appears to be a new syndrome of immune-mediated polyradiculoneuropathy, or more simply, a novel neurological disorder caused by an immune system response to something in the workplace environment shared by these individuals,” said study author Daniel Lachance, MD, of the Mayo Clinic in Rochester, MN, and a Fellow member of the American Academy of Neurology.

Lachance said the researchers will present additional details at the AAN Annual Meeting.

Source: American Academy of Neurology

Citation: New details presented in outbreak in pork processing plant workers (2008, April 17) retrieved 26 April 2024 from

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