

Severe West Nile Infection Could Lead To Lifetime Of Symptoms

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ScienceDaily (Mar. 17, 2008) — Most people who suffer severe infection with West Nile virus still experience symptoms years after infection and many may continue to experience these symptoms for the rest of their lives according to research presented March 17 at the 2008 International Conference on Emerging Infectious Diseases in Atlanta, Georgia.

"What we are finding is that about 60% of people, one year after severe infection with West Nile, still report symptoms," says Kristy Murray of the University of Texas Health Science Center at Houston, a lead researcher on the study.

Supported by a grant from the National Institutes of Health (NIH), Murray and her colleagues have been conducting a long-term, in-depth study of people in the Houston, Texas area who have been diagnosed with West Nile. They monitored 108 patients over a 5-year period, checking in every 6 months to record both subjective and objective clinical outcomes and rates of recovery.

Persistent symptoms of West Nile infection still plagued 60% of patients in the study at the end of the first year. Moreover, Murray and her colleagues discovered that most, if not all, recovery appeared to take place in the first two years following infection.

"Once they hit two years it completely plateaus. If a patient has not recovered by that time, it is very likely they will never recover," says Murray. Approximately 40% of patients in the study continued to experience symptoms 5 years after infection. Some long-term damage included memory loss, loss of balance and tremors.

Approximately 80 percent of people who are infected with West Nile do not experience symptoms. This study only included patients with symptoms, which can range from mild fatigue and weakness to seizures, paralysis and tremors. Half the patients experienced encephalitis due to infection and another third presented with meningitis. Murray and her colleagues noted a significant difference in recovery rates.

"Those patients with encephalitis were less likely to recover than those who had meningitis or uncomplicated fever," says Murray.

Another outcome of severe West Nile infection was depression. At the one-year followup 31% of the patients reported new-onset depression. Using objective measurements, the researchers determined that 75% of those cases met the definition of clinical depression.

"West Nile virus infection can result in significant long-term clinical sequelae and cognitive and functional impairment, particularly in those who present with encephalitis," says Murray.