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Biogen, Elan drug effective for multiple sclerosis

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Singapore: A study conducted on Biogen and Elan Pharmaceuticals's natalizumab has been shown to be effective for treating multiple sclerosis (MS). However, it increases the risk of a rare but potentially fatal brain infection called progressive multifocal leukoencephalopathy (PML).

The study examined 319 people with MS who were treated with natalizumab and diagnosed with PML. Because of the risk of PML, people taking natalizumab are monitored by their physicians for possible symptoms of the brain infection. The study compared people who had symptoms of PML at the time of diagnosis to people who had no symptoms of the infection, but who were diagnosed with the disease by brain scans and tests in the spinal fluid for the virus that causes the infection. The level of disability for the people in the study was assessed before the PML diagnosis, at the time of diagnosis, and again six months and one year after the diagnosis.

A total of 21 people had no PML symptoms at the time of their diagnosis, while 298 people had symptoms. The preliminary data from the study suggest that people who have no symptoms at diagnosis may have improved survival and less disability than those who had developed symptoms prior to their diagnosis, according to study author Dr Tuan Dong-Si, a medical director with Biogen Idec in Weston, US.

At the time of PML diagnosis, those people with no symptoms had an average score of 67 on the Karnofsky Performance Scale, which measures disability, while those people with symptoms had a score of 54. A Karnofsky score of 70 indicates that the individual may be able to care for him or herself, but may be unable to carry on normal activities or do active work. A Karnofsky score of 50 indicates that a person may require considerable assistance and frequent medical care. One year after PML diagnosis, the average Karnofsky score of those people with no symptoms at diagnosis was 70, as compared to 47 for those with symptoms at diagnosis. Karnofsky scores of less than 50 indicate that the individual may be unable to care for him or herself and may require institutional care or the equivalent.

As of January 1, 2013, all of the 21 people (100 percent) with no symptoms at the time of PML diagnosis were living, compared to 77 percent of the people with symptoms at the time of diagnosis. "These results suggest that the consequences of PML infection can be mitigated by early detection of the disease," said Dr Dong-Si.