

Marijuana worsens MS brain deterioration

Toronto, ON (March 28, 2011) – New research proves that prolonged use of cannabis in Multiple Sclerosis (MS) patients results in even poorer performance on cognitive (intellectual) skills already affected by MS.

“MS is a disease that affects the brain and is associated with cognitive deterioration as it is. Prolonged inhaled or ingested (‘street’) cannabis use is shown to significantly worsen one’s attention span, speed of thinking and processing information, working memory, executive functions and visuospatial skills,” says Dr. Anthony Feinstein, lead investigator of the study and neuropsychiatrist at Sunnybrook Health Sciences Centre. “What this tells us is that MS patients need to be made aware of these effects on personal, social and occupational functioning, and weigh whatever benefits with the very real cognitive side effects they will likely experience from long-term cannabis use.”

The study is published in the March 29 2011 issue of *Neurology*, the medical journal of the American Academy of Neurology.

Two groups of MS patients – 25 cannabis users and 25 non-users – were both tested using various cognitive skills testing including neuropsychological tests and interviews, as well as a psychiatric anxiety and depression scale.

Patients between the ages of 18 to 65 with confirmed MS were recruited from MS clinics affiliated with the University of Toronto. The average duration of marijuana use was 26 years. A total of 72 percent of users reported smoking marijuana on a daily basis while 24 percent reported weekly use and one person reported bi-weekly use.

In addition to performing significantly more poorly than non-users in the cognitive functioning skills mentioned above, the cannabis users were also twice as likely as non-users to be classified as globally cognitively impaired. There were no differences in psychiatric diagnoses for depression and anxiety.

“Given that about 40 to 60 per cent of MS patients have problems with cognitive function to begin with, any drug that may add to this burden is cause for concern,” adds Dr. Feinstein, also a professor of Psychiatry at University of Toronto.

Past cannabis research in MS patients has largely focused on synthetic derivatives of the drug; less attention has focused on inhaled ‘street’ cannabis. The clinical trials literature is small and suggests treatment may have some mildly beneficial effects in relieving pain, spasticity problems, insomnia, bladder problems, tremors, and emotional distress. The benefits reported are subjective however and need to be weighed with the potentially adverse cognitive effects. More research is needed to replicate these findings in a larger sample.

This study was supported by the MS Society of Canada and by research support for MS trials from the pharmaceutical industry.

About Sunnybrook Health Sciences Centre

Sunnybrook Health Sciences Centre is inventing the future of health care for the 1 million patients the hospital care for each year through the dedication of its more than 10,000 staff, physicians and volunteers. An internationally recognized leader in research and education and a full affiliation with the University of Toronto distinguishes Sunnybrook as one of Canada's premier academic health sciences centres. Sunnybrook specializes in caring for Canada's war veterans, high-risk pregnancies, critically ill newborns, adults and the elderly, and treating and preventing cancer, cardiovascular disease, brain disorders, orthopaedic and arthritic conditions and traumatic injuries.

-30-

Media Contact:

Nadia Norcia Radovini
Communications & Stakeholder Relations
Sunnybrook Health Sciences Centre
416.480.4040