Marijuana tested for glaucoma relief

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SECTOR: Health Outcomes
Medical

There is a great deal of controversy about the use of marijuana to relieve the painful symptoms of glaucoma, chiefly the increased eye pressure (IOP) associated with the most common forms of the disease. Glaucoma, a group of eye diseases, damages the optic nerve causes and gradually causes blindness. Often there are no discernable symptoms.

The benefits of marijuana (tetrahydrocannabinol) in relieving this pressure needs to be further explored using a variety of methods other than smoking: the most controversial and the most subject to abuse.

These four researchers at Dalhousie University's Department of Pharmacology, Dalhousie University's Retina and Optic Nerve Laboratory, and Defense R&D Canada designed a study to test the effects of tetrahydrocannabinol (THC), the most active component of marijuana, on IOP when administered by a variety of non-smoking methods: through the skin, via the abdomen, and in the lungs. Two different experimental animal species were used: rats and rabbits. Two other cannabinoids (THC like chemical agents), methanandamide and WIN55, 212-2, were also administered for comparison purposes.

The results to date are mixed and indicate that more research is needed. In rats, the research team found that the IOP lowering effect of THC is short lasting compared to that of the other two drugs. The studies with rabbits are still underway, but it has been demonstrated that THC does decrease the IOP in rabbits.

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Research Results