

Letter

Cannabidiol in Dystonic Movement Disorders

To the Editors:

Evidence has recently accumulated to suggest that cannabidiol (CBD), a nonpsychoactive cannabinoid of marijuana, may be useful in the management of hyperkinetic movement disorders (Snider and Consroe, 1984, 1985). We have therefore tested the efficacy of CBD in two patients with dystonic movement disorders.

A 65-year-old woman had idiopathic spasmodic torticollis of 2 years' duration. Her condition was characterized by a lateral pulling of her neck to the right, which occurred at a frequency of 8-12/minute. In addition, she had essential-type tremor affecting both hands, which was only partially relieved with atenolol (50 mg/day). CBD (200 mg, orally) produced an amelioration of the dystonic movements within 3 hours of administration, reducing the frequency of the lateral neck movements to 2-4/minute. The patient's improvement was confirmed by an evaluation of two independent neurologists.

A 31-year-old man had generalized torsion dystonia (*dystonia musculorum deformans*) of 20 years' duration. He had obtained mild benefit from high doses (25-45 mg/day) of trihexyphenidyl, but was confined to a wheelchair. CBD (200 mg, orally) produced an amelioration of his symptoms (especially of his more severely affected right leg) within 2 hours of administration. Following CBD administration, he was able to walk without support, an effect that lasted about 24 hours. In both cases, CBD produced no adverse effects.

Cannabidiol (CBD) has been shown to have significant muscle relaxant effects and to reduce muscular spasm in humans (Petro, 1980). In rodents, CBD has been reported to reduce cholinergic transmission (Revuelta et al., 1978) and to increase turnover of γ -aminobutyric acid (Revuelta et al., 1979). Acute administration of Δ -tetrahydrocannabidiol to rats greatly potentiated the hypokinetic effect of reserpine (Moss et al., 1984), suggesting that this compound may have antidyskinetic properties in humans and that further studies of CBD in other

hyperkinetic movement disorders in humans are warranted.

References

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