Antagonism of marihuana effects by indomethacin in humans.

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Abstract

To investigate whether the nonsteroidal anti-inflammatory drug (NSAID) indomethacin antagonized the effects of marihuana, an exploratory single-blind, placebo-controlled study was conducted. Subjects (n = 4) smoked marihuana after pre-treatment with placebo and indomethacin. The subjective rating of marihuana "high", heart rate, word recall, time estimation/production, and plasma concentrations of THC and PGE2 were measured. It was found that: 1) indomethacin pre-treatment decreased the elevation of prostaglandins induced by THC; 2) indomethacin significantly attenuated the subjective "high" and the heart rate accelerating effects of THC, although the magnitude of this effect was modest; 3) indomethacin abolished the profound effect of THC on time estimation and production; and 4) indomethacin pretreatment did not affect the decremental effects of THC on word recall. We conclude that prostaglandins are involved in the neurophysiologic mechanisms that mediate some of the typical clinical effects of THC, particularly the distortion of time perception.

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