Ulcerative Colitis and Marijuana

To the Editor: The apparent protective effect of cigarette smoking on ulcerative colitis (1) suggests that inhaled plant products might affect the disease process. We report a case suggesting a relation between ulcerative colitis and smoking marijuana.

In 1972, a 23-year-old woman developed abdominal pain, diarrhea, and rectal bleeding. Sigmoidoscopy to 15 cm revealed diffuse cobblestone ulcerations, and a single-contrast barium enema showed numerous small marginal irregularities in the distal sigmoid and rectum. Ulcerative colitis was diagnosed, and her symptoms waxed and waned despite treatment with sulfasalazine, librax, and intermittent prednisone. Discouraged, she stopped all medications in 1975. In 1976, she noted that smoking marijuana resulted in fewer stools, more stable body weight, and fewer, milder exacerbations. Her typical intake was a pipeful once or twice daily, which she maintained despite her dislike for its euphoric effects. Cessation repeatedly resulted in exacerbations within a few weeks; resumption led to some improvement in a day or two, with maximal effect after several weeks.

She was smoking marijuana daily when, after having 2 months of symptoms, she was hospitalized at the Mary Hitchcock Memorial Hospital in 1983. She was febrile and had an erythrocyte sedimentation rate of 103 mm/h. Sigmoidoscopy to 16 cm showed diffuse small friable ulcerations with granularity. A biopsy of the lower rectal fold showed marked chronic inflammation extending into the submucosa without granulomas. She improved promptly with prednisone. At home she resumed taking marijuana. Over 15 months her prednisone dose was tapered and sulfasalazine therapy begun. Sigmoidoscopy to 20 cm was normal, and a single-contrast barium enema showed a diffuse granular pattern with a "pipe-like" appearance, compatible with inactive colitis.

In 1986 she stopped both sulfasalazine and marijuana but within 2 months became symptomatic. Sulfasalazine was resumed with minimal relief, and 2 months later she resumed taking marijuana. Her symptoms improved within about a week, and in 2 months she was again in remission through 1988. The patient had started smoking cigarettes before the onset of the ulcerative colitis. She noted no relation to her symptoms and stopped smoking in 1982 for "health reasons." She thought her symptoms worsened with coffee or alcohol and rarely drank either beverage.

This case suggests marijuana may ameliorate ulcerative colitis, although an alternative explanation is the natural variation in the severity of its symptoms. It is not clear how tobacco or marijuana might have a beneficial effect. Suggested mechanisms for cigarettes include enhanced catecholamine release, disturbed prostaglandin production, and immunologic changes (1). Cigarettes increase colonic motility and marijuana in large doses may cause diarrhea (2), although it is difficult to relate these observations to ulcerative colitis. A few systemic effects are similar for both drugs. Both have been associated with T-cell suppression (3), but the relation of ulcerative colitis with immune disturbances is weak (4). Interference with the pituitary-ovarian axis can occur from either drug (2, 5); for tobacco, this interference seems to cause relative estrogen deficiency in women (5). Through effects on estrogen receptors in the colon or changes in bile composition, such hormonal changes could conceivably affect the colon.

Although an ameliorative effect of marijuana smoking on ulcerative colitis, if verified, would probably have little direct clinical relevance, it might lead to new therapy and help elucidate the disease.

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References

1. **Cope EF, Heatley RV, Kelleher J, Lee PN.** Cigarette smoking and inflammatory bowel disease: a review. *Hum Toxicol.* 1987;**6**:189-93.
2. **Nahas GG.** Toxicology and pharmacology. In: Nahas GG, ed. *Marihuana in Science and Medicine.* New York: Raven Press; 1984.
3. **Holt PG, Keast D.** Environmentally induced changes in immunological function: acute and chronic effect of inhalation of tobacco smoke and other atmospheric contaminants in man and experimental animals. *Bacteriol Rev.* 1977;**41**:205-16.
4. **Kirsner JB, Shorter RG.** Recent developments in nonspecific inflammatory bowel disease, part 2. *N Engl J Med.* 1982;**306**:837-48.
5. **Baron JA.** Smoking and estrogen-related disease. *Am J Epidemiol.* 1984;**119**:9-22.

Parenteral Nutrition and Cancer Chemotherapy

To the Editor: The Chief of Pharmacy eagerly presented me with a copy of a position paper by the American College of Physicians (1). He needed an explanation because his impression from reading the article was that nutritional support had no place in the management of patients with cancer.

I pointed out that although the first sentence in the "Rationale" section recognized malnutrition or a significant comorbidity in some patients with cancer, the first sentence of the second paragraph in the "Recommendations," stated, "Most patients in the studies reviewed were not severely malnourished." I explained that parenteral nutrition does not treat cancer. It treats or prevents progressive malnutrition associated with the compromise of normal nutriture either by direct infiltration or as the result of adjuvant therapy (2-4). Its indication is to keep a patient alive who has a chance for cure or palliation, not allowing that patient to deteriorate and suffer potentially life-threatening complications of progressive malnutrition. He immediately understood and asked why a position taken by an august group like the American College of Physicians was based squarely on a false premise. I could not explain why and therefore request that the authors respond.

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