

by itself was not toxic, but that may have inhibited or altered these patients' ability to metabolize the large amount of ingested L-tryptophan.

L-tryptophan is metabolized via either the 5-hydroxytryptamine or the kynurenine pathway; both depend on vitamin B6, or pyridoxal phosphate, as a cofactor. It has been theorized that an abnormality in the kynurenine pathway may be responsible for the syndrome, but the specific abnormality has not yet been identified.

Investigations have also raised questions about whether the syndrome has an immunologic pathogenesis. For example, in humans, IgE production and eosinophilia are controlled by two predominant cytokines, interleukin-4 (IL-4) and interleukin-5 (IL-5), respectively. T helper cells that have been triggered by various antigens may produce two cytokines. IL-5 activity in particular leads to eosinophil differentiation and proliferation in the bone marrow and to eosinophilia. Since individuals with idiopathic hypereosinophilic syndrome have lower than expected levels of IL-5 produced by their T cells, it appears that additional non-IL-5 dependent mechanisms may account for eosinophilia in some situations. We do not know yet how eosinophilia is regulated in the eosinophilia-myalgia syndrome.

MANAGEMENT

The primary treatment is to make certain the patient stops ingesting L-tryptophan and, in cases of mild illness, to follow the patient closely. In severe, aggressive disease, high-dose (60 mg/d) prednisone therapy is recommended for several weeks. Cytotoxic drugs such as hydroxyurea and cyclophosphamide may have a role in the treatment of patients who have progressive neurologic manifestations.

JAMES W. KAZURA, MD
Director, Geographic Medicine
Case Western Reserve University
Cleveland, Ohio

BIBLIOGRAPHY

- Clinical spectrum of eosinophilia-myalgia syndrome. *MMWR* 1990; 39:89-91.
- Kilbourn EM, Swygert LA, Philen RM, et al. Interim guidance on the eosinophilia-myalgia syndrome. *Ann Intern Med* 1990; 112:85-87.
- Varga J, Peltonen J, Uitto J, Jimenez S. Developments of diffuse fascitis with eosinophilia during L-tryptophan treatment. Demonstration of elevated type I collagen gene expression in affected tissues. *Ann Intern Med* 1990; 112:344-351.

SMOKING CESSATION: STRATEGIES THAT WORK

Physicians tend to perceive smoking cessation as an unreachable target; yet, most patients who smoke will eventually quit in response to repeated, persistent support and encouragement from a physician.

When patients visit physicians, they are concerned about their health, and therefore receptive to suggestions that will improve or maintain it. A group of Minnesota physicians (Doctors Helping Smokers) has acted on this phenomenon and had remarkable success. Furthermore, they have been able to translate their smoking cessation success rate into decreased use of health care services and lower health care costs.

The Doctors Helping Smokers program is distinguished by persistence. Many clinicians, unconvinced of their influence on patients who smoke, neglect to follow through after telling patients that smoking is dangerous and they should quit. Yet, simple, brief, one-time physician's advice to quit smoking produces long-term (1 year or more) quit rates of 3% to 9%. Adding specificity to the message and providing follow-up can result in quit rates of 10% to 27%. The Minnesota program recognizes the need for this continued support and encouragement, but also appreciates the time limitations of day-to-day practice.

The program works as follows: All patients are screened for smoking status. At every encounter with a smoking patient, after addressing the primary problem, the doctor says, "I want you to stop smoking," and follows that with "Are you ready to stop now?" and "When will you be ready to stop? On what day?"

Patients are urged to name a stop date, and the physician then asks if they would like help to stop smoking. Patients who say yes are referred to smoking cessation programs. With or without a referral, patients are told that a nurse will call 3 to 7 days after the stop date to check on their progress and find out whether they need help. Careful records are kept of the patients' responses, and follow-up continues at least every 3 months.

PHYSICIANS HAVE MORE INFLUENCE

The Minnesota program has shown that a physician's recommendation to quit has an impact on the patient, particularly when it is repeated on several occasions, and when information about health dangers is related directly to the patient from the physician.

Most patients who smoke know about the associated dangers; but the effect of hearing about them from children, spouses, friends, and the media pales in comparison

to the physician's reminders that, because they smoke, they risk heart disease, cancer, and chronic obstructive lung disease. Patients who thoroughly understand the health hazards and who perceive themselves at higher risk (for example, those who have a family history of cancer, heart disease, or lung disease) are among those more likely to quit.

Repeated warnings about impaired quality of life add to the impact. For example, smoking increases the likelihood of shortness of breath, prematurely wrinkled skin, upper respiratory infections and lost work days, impaired sexual performance, frostbite, and automobile accidents. The danger of house fires should not be overlooked. Finally, smoking lowers one's self esteem because the individual is controlled by the addiction.

HOW TO BE EFFECTIVE

For a smoking cessation program to be effective, the physician needs to be familiar with the physiologic process of quitting smoking, and with quit strategies that work.

Virtually every smoker who quits will experience withdrawal symptoms. The notable exceptions are some who quit following bypass surgery or a myocardial infarction. Withdrawal is brief. Symptoms generally peak 2 to 3 days after quitting and are gone 10 to 14 days later. After that, cravings for cigarettes are related to previous linkages, or associations, with situations, emotions, and people, but not to a craving for nicotine. These cravings tend to be intense but brief, rarely lasting for more than 30 seconds.

Withdrawal symptoms vary from patient to patient, and may include headaches, lightheadedness, changes in bowel habits, nausea, diarrhea, chest pain, cough, sore throat (often, a smoker is unaware of a chronic sore throat because of the anesthetizing effects of smoking), increased irritability, decreased frustration tolerance, anxiety, difficulty concentrating, emotional lability, increased appetite, and sleep disturbances. Acute depression is also possible and seems to be relatively more common among women than men.

The value of group support cannot be overestimated. Many people need it, along with physician support and encouragement, to achieve success. The average success rate of stop-smoking programs ranges from 20% to 30%. The best ones offer patients not only company, but also an opportunity to learn coping skills, relaxation and other techniques they will need to achieve smoking cessation. Hypnosis may help, but it is no panacea.

One helpful strategy is to give the patient a stop-smoking checklist in which "assignments" are separated into manageable units of time—preparing to quit, the

first 2 weeks, after 2 weeks, and after 2 months. For example, when preparing to quit, the patient would be assigned to pick a quit date and mark it on the calendar, and would change to a less desirable brand of cigarettes.

Persistence and encouragement from the physician are essential to success. Smoking is a powerful addiction. If the patient "slips," it is best not to be judgmental or pessimistic, but instead to encourage the individual to learn from the experience, pick a new quit date, and get it right the next time.

GARLAND Y. DeNELSKY, PHD
Head, Section of Psychology
Director, Smoking Cessation Program
The Cleveland Clinic Foundation

BIBLIOGRAPHY

Cummings SR, Rubin SM, Oster G. The cost effectiveness of counseling smokers to quit. *JAMA* 1989; **261**:75-79.

Hughes JR, Kottke TE. Doctors helping smokers: real-world tactics. *Minnesota Medicine* 1986; **69**:293-295.

Kottke TE, Battista RN, DeFries GH, Brelle ML. Attributes of successful cessation interventions in medical practice: A meta-analysis of 39 controlled trials. *JAMA* 1988; **259**:2883-2889.

US Department of Health and Human Services. The Health Consequences of Smoking: Nicotine Addiction. 1988, DHSS Pub. No. 88-8406.

MESENTERIC ISCHEMIA: A NEGLECTED DIAGNOSIS

As the population ages, we can anticipate an increased number of patients with hemodynamically significant atherosclerotic occlusive disease. Our understanding of the features of visceral ischemia syndromes, the liberal early use of diagnostic arteriography, and prompt therapeutic intervention will improve both survival and quality of life.

Early diagnosis is not the general rule in mesenteric ischemia, partly because accurate, noninvasive diagnostic measures have not been applied to the mesenteric circulation. Mesenteric arteriography is the most accurate, and essentially the only useful, study for the diagnosis of mesenteric ischemia; but, because it is invasive, it is often obtained only after a period of observation.

CHRONIC MESENTERIC ISCHEMIA

Chronic mesenteric ischemia is nearly always caused by atherosclerosis involving the proximal visceral arteries.