Alternative Medicine

AN EVIDENCE-BASED APPROACH

Fasting for Rheumatoid Arthritis

History and Rationale for Use

Fasting was a central component of many ancient medical and spiritual systems, but its modern use began in the United States with the natural and physical medicine movements of the late 19th century. Enthusiasm for the practice burgeoned until, in 1912, a practitioner in the Pacific Northwest, Linda Burfield Hazzard, was brought to trial, found guilty of manslaughter, and sent to prison following the starvation death of a wealthy young Englishwoman under her care.

Although the practice of fasting subsequently fell from favor in the United States, it experienced a resurgence in Europe in the 1950s, particularly in Germany and Scandinavia.

► *Many patients with rheumatoid arthritis report symptomatic improvement with fasting.*

► *A large, prospective German study suggests that fasting followed by a vegetarian diet can lead to persistent clinical improvements.*

Fasting leads to neuroendocrine changes, as was seen in an investigation of 22 patients with chronic pain conditions who participated in a 7-day fast. These patients had significant increases in urinary concentrations of noradrenaline, adrenaline, and cortisol, while control patients following a vegetarian diet showed no changes (Nutr. Neurosci. 2003;6:11-8).

Many patients with rheumatoid arthritis (RA) have reported benefits from dietary therapies such as fasting, and various hypotheses have been proposed to explain this. One suggestion is that alterations in gut microflora and changes in bacterial substances absorbed via the intestinal mucosa may influence inflammatory activity in the joints (Am. J. Clin. Nutr. 1999;70[suppl.]:594S-600S).

The Essen Experience

In Essen, Germany, at the department of integrative medicine, Kliniken Essen-Mitte, a large prospective outcome study found significant benefits from a 7-day fasting program among inpatients with various chronic pain conditions including RA, osteoarthritis, fibromyalgia, and migraine.

Patients typically stay at this clinic for 10-14 days and undergo a program of lifestyle modification and mind-body medicine. Treatment costs for the program are reimbursable in the German health care system.

The clinic, which was founded in 1999, expanded in 2001 and began offering medically supervised therapeutic fasts to all patients except those with eating disorders, liver or renal disease, gastric ulcers, or other comorbidities that could make it unsafe to fast.

Between 2001 and 2004, there were 2,787 patients who attended the clinic for 3 days or more. Of the 2,121 patients with complete discharge questionnaires, 952 fasted, 873 followed a normocaloric Mediterranean diet, and 296 followed other nutritional programs such as elimination diets or rice diets and were not included in the study.

Patients who elected to fast had 2 prefasting days when they consumed 800 calories from fruit, rice, or potatoes. During the 7 days of actual fasting, they were instructed to drink mineral water, herbal tea, vegetable broth, and juice, for a total caloric intake of 350 kcal. In the 4 days following the fast, foods were slowly reintroduced. Enemas or laxatives were administered during the fast.

At the time of discharge from the clinic, disease-related complaints had improved to a significantly greater degree among fasting patients, with 344 (37%) reporting that their symptoms were "much better," compared with 209 (24%) of the nonfasting patients reporting that level of improvement.

Overall, 743 (78%) of fasting patients reported improvements in their health status, while 176 (18%) reported no change and 33 (3%) reported worsening of their health (J. Altern. Complement. Med. 2005;11:601-7).

No serious adverse events were reported. Two patients developed hyponatremia when they continued diuretic use against medical advice; their sodium levels normalized when the diuretics were withdrawn. A total of 23 patients stopped fasting early because of hunger or irritability, and 4 experienced moderate gastric pain. Discomfort during fasting most commonly occurs on day 2 or 3, when the metabolism is shifting to lipolysis.

The most common complaint during fasting was headache, which was reported by about 15% of patients. "This was at least partly a result of coffee withdrawal," lead investigator Andreas Michalsen, M.D., said in a discussion of the study at a symposium on alternative and complementary medicine sponsored by the universities of Exeter and Plymouth held in Exeter, England.

"Patients who fasted also seemed to have better success in maintaining beneficial long-term lifestyle changes such as exercise and relaxation," Dr. Michalsen said.

Other Clinical Studies

A systematic review identified 31 original reports on fasting as a treatment for RA; 4 of them were controlled and methodologically adequate. The results of these four studies "support the hypothesis that a short period of fasting followed by a vegetarian diet can cause clinically relevant long-term improvement in patients with RA" (Scand. J. Rheumatol. 2001;30:1-10).

The most convincing evidence, according to the authors of the systematic review, was collected in a randomized, single-blind Norwegian study. The study assigned 27 patients to 4 weeks at a health farm where they fasted initially and then followed a vegetarian diet; another 26 patients stayed at a convalescent home for 4 weeks where they followed an omnivorous diet.

The groups were followed for an additional 12 months, during which significant differences were seen between the two in multiple disease-activity variables including tender joints, morning stiffness, health assessment questionnaire scores, and global assessment (Lancet 1991;338:899-902).

A subsequent analysis of this cohort also found that patients who fasted and then followed a vegetarian diet showed significant decreases in leukocyte counts, rheumatoid factor, and the C3 and C4 complement components, suggesting that "dietary treatment can reduce disease activity in some patients with rheumatoid arthritis" (Scand. J. Rheumatol. 1995;24:85-93).

—Nancy Walsh

Extraarticular Signs Predict RA Course

BY NANCY WALSH
New York Bureau

Vienna — Early rheumatoid nodules, pulmonary involvement, and malaise with weight loss are predictive of long-term poor outcomes in rheumatoid arthritis, Gouri Koduri, M.D., said at the annual European Congress of Rheumatology.

Although rheumatoid arthritis (RA) is primarily an articular disease, it also has myriad extraarticular manifestations, some of which are associated with increased morbidity and mortality. But there have been few reports on when in the course of disease these extraarticular features develop and what their impact is, she said.

These concerns are now being addressed in an ongoing inception cohort that includes 1,415 patients who have been enrolled since 1986 from nine centers in England.

Clinical and laboratory measures have been recorded at yearly intervals, and analyses of 10-year outcomes include function disability, joint damage, and causes of death.

The effects of other parameters such as age, sex, rheumatoid factor (RF) positivity, and smoking on the development of extraarticular manifestations also have been examined, said Dr. Koduri of St. Albans City Hospital, Hertfordshire (England) University.

A total of 576 (41%) patients have had at least one extraarticular feature. The most common were subcutaneous nodules, in 450 patients (34%). These developed within the first year after diagnosis in 11%, she said at the congress, sponsored by the European League Against Rheumatism.

Secondary Sjögren's syndrome developed in 140 (10%), pulmonary disease in 55 (4%), marked malaise and weight loss in 47 (3%), and vasculitis in 32 (2%).

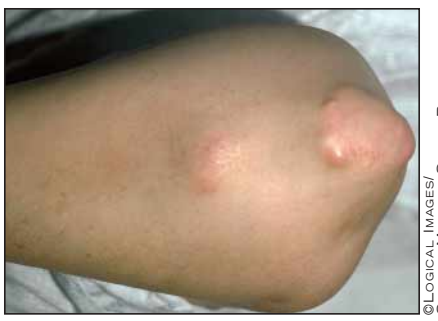
Risk factors for mortality included pulmonary fibrosis, with an odds ratio of 6.93, and the presence of two or more extraarticular features at presentation or by 1 year after diagnosis, with an odds ratio of 4.3, she said.

Marked malaise with weight loss and rheumatoid nodules also were associated with increased risk of mortality, with odds ratios of 2.7 and 1.5, respectively.

Extraarticular manifestations were a primary or contributory cause of death in 24 patients, 23 with pulmonary fibrosis and 1 with vasculitis, Dr. Koduri said.

The presence of nodules within the first 2 years also was predictive of morbidities including erosive disease, with an odds ratio of 2.7, and poor physical function, with an odds ratio of 1.6.

Sjögren's syndrome was associated only with worse function. ■



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The most common extraarticular features were subcutaneous nodules.

Etanercept Safe, Well Tolerated in the Elderly

The safety of the biologic etanercept (Enbrel) doesn't appear to vary depending on the age of the patient taking it for a rheumatic disease, according to the findings from a review of 22 clinical trials.

The investigation, by Roy Fleischmann, M.D., of the University of Texas Southwestern Medical Center at Dallas, and his colleagues, examined data on 3,893 subjects with rheumatoid arthritis, psoriatic arthritis, and ankylosing spondylitis.

Most of the clinical trials were controlled, with control patients taking either placebo or methotrexate (Ann. Rheum. Dis. [online] Sept. 21, 2005; http://ard.bmjjournals.com/onlinefirst.shtml).

Significantly more subjects aged 65 years and older reported adverse events and serious adverse events whether they were treated with etanercept or not. The rate of medically important adverse events was higher in elderly users and nonusers of the biologic (10% and 7%, respectively), compared with younger users and nonusers (4% and 1%).

But when the data were analyzed to take into account event rates associated with etanercept among control subjects, the only statistically significant difference was a higher proportion of infectious events in younger subjects.

The study was funded by Immunex Corp. and by Wyeth, the manufacturers of etanercept.

—Robert Finn