

Clinical Digest

HEPATOLOGY

Role of Herbs in Fulminant Hepatic Failure

If a patient develops fulminant hepatic failure (FHF), many clinicians' first instinct is to suspect acetaminophen poisoning, idiosyncratic drug reactions, or viral hepatitis. But after conducting a retrospective case series, researchers at the Portland VA Medical Center in Portland, OR found that half of the 20 patients referred to their facility for FHF during a 21-month period had been using hepatotoxic herbal and dietary supplements including LipoKinetix (Syntrax Innovations Inc., Cape Girardeau, MO) for weight loss; kava, as an anxiolytic and mood enhancer; chaparral, as a liver tonic, blood purifier, and weight loss aid; and ma huang for its stimulatory effects.

Some patients had been taking these supplements for years; some, for only days. In seven patients (35%), the herbal or dietary supplements were the only cause of FHF. In three others (15%), cofactors included chronic or acute hepatitis B infection and disulfiram use. Of the patients taking supplements, six received orthotopic liver transplantation and five died—compared to two and five, respectively, of the patients not taking supplements. All liver specimens showed significant necrosis with varying degrees of inflammatory changes.

The researchers believe this is the first description of the high prevalence of dietary supplement use among patients with FHF. They suggest that such agents may account for some previous cases of FHF for which the cause had remained indeterminate. Based on these results, the researchers now routinely ask patients about dietary and herbal supplement use during pretransplantation evaluations. They also recommend that health care professionals check patients' medication lists for these agents and caution patients against using any that might be hepatotoxic.

Source: *Arch Surg.* 2003;138: 852–858.

DIABETES CARE

Let Ulcerated Feet Breathe

Hyperbaric oxygenation (HBO) therapy may double the mean healing rate of nonischemic chronic foot ulcers in some patients with diabetes, according to researchers from the University Hospital, Strasbourg, France.

At the beginning of this prospective, randomized study, 28 patients with type 1 or type 2 diabetes were hospitalized for two weeks of either standard treatment alone or standard treatment plus HBO. The **HBO** therapy encompassed 90-minute sessions of 100% oxygen breathing in a hyperbaric chamber held twice daily, five days a week. It was generally well tolerated. One patient developed barotraumatic otitis but recovered without sequelae.

The researchers evaluated the size of each patient's foot ulcer before and after therapy. At day 15 posttreatment, ulcer size was reduced significantly in the HBO group, and four weeks later, the ulcers were healed completely in two HBO pa-

tients. None of the control patients' ulcers healed. The researchers note, however, that the accelerated rate of healing in the HBO group was observed only as long as the treatment lasted. After it was stopped, the healing progressed at comparable rates in the two groups.

The study was based on previous research that indicated high oxygen pressure could stimulate the growth of new blood vessels, in part due to the release of collagen from fibroblasts and of vascular growth factors from macrophages. The effect of high oxygen levels on the body's ability to kill bacteria also may play a role.

Source: *Diabetes Care*. 2003; 26:2378–2382.

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