of men and 20% to 25% of women.[1] At least two thirds of leg ulcers have evidence of venous disease in the affected limb. The current standard medical therapy is the use of compression stockings, but patient compliance is often poor. HCSE is an oral herbal remedy commonly used for the treatment of CVI. The active component of HCSE is escin, which is believed to prevent leukocyte activation, one mechanism in the development of CVI.

Population studied This is a systematic review of 13 studies with 1083 total patients.

Study design and validity The reviewers systematically and comprehensively searched the medical literature through 1996, without restriction to language, for all randomized controlled trials of treatment with HCSE for CVI. Trial outcomes and the methodologic quality of trials were independently assessed using a standard instrument that considered randomization, the extent of blinding, withdrawals, and dropouts.[2] The authors clearly describe the way in which they identified potential studies, the review method used, and the quality scoring system. Studies were scored from 1 to 5, and studies scoring less than 3 were excluded. The authors had planned a meta-analysis (with pooling of results), but variations in devices used for assessment and insufficient reporting of data prevented this method.

Outcomes measured The primary outcomes varied among the studies, and included reduction in leg volume (6 studies), capillary filtration coefficient (1), calf or ankle circumference (4), and reduction in CVI symptoms, such as pain, pruritus, and fatigue (2).

Results Sixteen randomized controlled trials were identified, and 13 studies with 1083 total patients met the reviewers' inclusion criteria. Of these, 8 were placebo controlled, and 5 compared HCSE with a reference medication. One study was published in *Lancet*; the others were written in languages other than English. The placebo-controlled trials suggest a significant decrease in lower-leg volume or CVI symptoms among patients using HCSE standardized to 100 to 150 mg escin: 7 of 8 trials reported a statistically significant improvement. The reduction in leg volume was modest, the largest being 114 mL in the HCSE group compared with 1 mL for placebo in 1 study ($P = .009$). The studies were all short term, ranging from 2 to 12 weeks in duration. The methods by which leg volume was measured were not described, and presumably varied from study to study. Adverse drug reactions were only poorly documented in 8 of 13 studies, and included gastrointestinal symptoms, dizziness, nausea, and headache. When adverse reactions were reported, the frequency was 0.9% to 3.0%.

Recommendations for clinical practice **It appears that HCSE may have some effect in reducing short-term symptoms of CVI, but further well-designed studies of longer duration are necessary to answer this question definitively. Because CVI is a chronic disease, more thorough evaluations of the safety of HCSE are important before we actively recommend it to our patients.**

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Treating *Helicobacter pylori* Infection in Nonulcer Dyspepsia

McColl K, Murray L, El-Omar E, et al. Symptomatic benefit from eradicating *helicobacter pylori* infection in patients with nonulcer dyspepsia. N Engl J Med 1998: 339:1869-74.

Clinical question **Does eradicating *Helicobacter pylori* infection in patients with nonulcer dyspepsia improve symptoms?**

Background Dyspepsia affects approximately 30% of the population and accounts for 2% to 5% of all visits to family physicians. Endoscopy of these patients usually reveals no ulcer, and they are classified as having nonulcer dyspepsia (NUD). There has been speculation that *H pylori* may contribute to NUD and that treatment of the bacteria could improve symptoms. Studies on the affect of eradication of *H pylori* infection in patients with NUD have shown conflicting results.

Population studied Participants in this British study were referred by their primary care physician to a dyspepsia clinic after having symptoms for at least 4 months. Dyspepsia was defined as intermittent or persistent pain or discomfort in the upper abdomen or lower chest, heartburn, nausea, a feeling of postprandial fullness, or any other symptoms related to the upper gastrointestinal tract. All participants had 2 positive test results for *H pylori* and no evidence of peptic ulcer disease on endoscopy. Patients were excluded if they had previously been given a diagnosis of peptic ulcer disease, had evidence of esophagitis on endoscopy, were taking nonsteroidal anti-inflammatory drugs other than low-dose aspirin, had undergone gastric resection, were pregnant, or had previously been treated for *H pylori* infection. Out of 916 patients screened, 330 were eventually enrolled in the study.

Study design and validity This is a randomized, double-blind, placebo-controlled trial. The intervention group (n = 160) received omeprazole 20 mg twice daily, amoxicillin 500 mg 3 times daily (with tetracycline 500 mg 3 times daily for patients with penicillin allergies), and metronidazole 400 mg 3 times daily. The control group (n = 158) received only omeprazole 20 mg twice daily and placebos to match the antibiotics. The patients were evaluated 4 weeks after therapy for side effects and *H pylori* status and at 1 year for dyspepsia symptoms, quality of life, and *H pylori* status. The study was appropriately analyzed using an intention-to-treat analysis; 97% of the patients completed the study. While the study was methodologically well done (high internal validity), the results may not be generalizable to a typical family practice in the United States, because patients were British and were referred to a specialty clinic (possible low external validity).

Outcomes measured The primary outcome was resolution of symptoms, defined as a Glasgow Dyspepsia Severity Score of 0 or 1 at 1-year follow-up. Secondary outcomes included *H pylori* status and quality of life.

Results Symptoms resolved in 33 of 154 (21%) patients in the intervention group and 11 of 154 (7%) patients in the omeprazole plus placebo group (95% confidence interval [CI] for the difference, 7 - 22; number needed to treat = 7). In addition, 85% of the intervention group had a negative *H pylori* test result, compared with 12% of the control group. The quality-of-life scores were not statistically different. In a multivariate analysis, having symptoms for less than 5 years predicted a positive response to therapy.

Recommendations for clinical practice **While this study demonstrated a benefit of eradicating *H pylori* on the basis of the Glasgow Dyspepsia Severity Score, this did not translate into a difference in the patients' quality of life. A second study in the same issue of the *New England Journal of Medicine* found no statistical difference in dyspepsia symptoms after treatment to eradicate *H pylori*.[1] However, there were methodologic differences in the second study that could explain the difference in their findings, including 1 week (rather than 2 weeks) of therapy, a multinational population, using a Likert scale to assess symptoms, and excluding patients with reflux disease. On the basis of this study it seems reasonable to eradicate *H pylori* in patients with dyspepsia who are *H pylori*–positive, knowing that this will probably help the 20% to 30% of patients with an ulcer, but may not benefit the remainder. A recent guideline from the American Gastroenterological Association supports testing all patients with dyspepsia for *H pylori*. Then it suggests eradicating the bacteria empirically in those who are *H pylori*–positive, younger than 45 years and without "red flags," and considering endoscopy for the remainder.[2] Because this study is based on a decision analysis, not a randomized trial, more studies are necessary to clarify the causes of NUD and to determine the best way to treat our patients.**

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Gabapentin for Painful Diabetic Neuropathy

Backonja M, Beydoun A, Edwards KR, et al. Gabapentin for the symptomatic treatment of painful neuropathy in patients with diabetes mellitus: a randomized controlled trial. JAMA 1998; 280:1831-6.

Clinical question **How effective is gabapentin in reducing the pain associated with diabetic peripheral neuropathy?**

Background As many as 45% of patients with diabetes develop peripheral neuropathy, and associated pain can be significant and debilitating. Good evidence exists supporting the analgesic effectiveness of tricyclic antidepressants. Carbamazepine, topical aspirin, and lidocaine may also be beneficial.[1] A newer anticonvulsant, gabapentin, has been used for neuropathic pain, but until now there have been no placebo-controlled trials validating its effectiveness.

Population studied A total of 165 patients with a 1- to 5-year history of pain clinically attributed to diabetic neuropathy were recruited from 20 outpatient clinics. Additional criteria for inclusion were a rating of moderate or greater on a visual analog pain scale, reasonable diabetic control (hemoglobin A_{1c} level <0.11), and a creatinine clearance greater than 60 mL per minute. Concurrent use of acetaminophen, once-daily aspirin, and serotonin reuptake inhibitors was allowed, but patients taking other analgesics were excluded.

Study design and validity In this double-blind, 8-week trial, patients were randomly assigned to receive either placebo or gabapentin. They received doses titrat-