POEMs

Patient-Oriented Evidence that Matters

Although many of us have, for many years, been injecting patients who have CTS, I had usually considered this a temporary measure for most patients, as they would eventually require surgery. Our first POEM provides evidence that injection is comparable to surgery for at least the first 12 months supporting the view that steroid injection is worth offering. The second POEM for June supports the use of metoclopramide alone or in combination for the treatment of acute migraine. The third POEM supports other evidence (Bandolier 133) that, in older people, low cholesterol levels are associated with increased mortality. Are statins just for the middle-aged? Editor.

Clinical question

Is local steroid injection for carpal tunnel syndrome as effective as surgery?

Bottom line

Patients with carpal tunnel syndrome do better with local steroid injections than with surgery in the short term, but at the end of 12 months, the outcomes appear comparable, though more than 20% of patients had discontinued the study by this time period. (LOE = 2b)

Reference

Ly-Pen D, Andreu JL, de Blas G, Sanchez-Olaso A, Millan I. Surgical decompression versus local steroid injection in carpal tunnel syndrome: a one-year, prospective, randomized, open, controlled clinical trial. Arthritis Rheum 2005; 52:612-19.

Study Design

Randomised controlled trial (nonblinded)

Allocation

Concealed

Setting

Outpatient (specialty)

Synopsis

Adults with carpal tunnel syndrome (CTS) referred to a special carpal tunnel clinic were eligible to participate in this study if they had symptoms for more than three months and didn't respond to two weeks of nonsteroidal anti-inflammatory drugs and splinting. The authors confirmed CTS by electrodiagnostic testing. Patients were randomly assigned to surgery (n=80) or local steroid injection (n=83). The allocation was concealed. One surgeon performed all surgeries and one surgeon (not the one who did the surgery) performed all the steroid injections. The main outcome – severity of symptoms on a 100-point visual analog scale – was assessed via intention to treat. The authors defined treatment success as a 20% reduction in symptoms. This is consistent with other literature that suggests a 15% to 20% improvement is the minimum difference that is clinically meaningful. Since more than 80% of patients in the steroid injection group received two injections, the therapy in this study should be attributed to a course of two local steroid injections, not a single injection. The patients in each group were similar at baseline, and by the end of the study, more than one-fifth of each group dropped out. After three months, 94% of the patients treated with steroid injections improved compared with 75% of the surgical patients (number needed to treat = 5; 95% CI, 3–13). But by the end of 12 months, there was no significant difference in improvement between groups (70% and 75%, respectively). The high drop-out rate in this study may confound these data.

** Patient-Oriented Evidence that Matters. See editorial (NZFP 2003; 30:150)*

Clinical question

In patients with acute migraine, is metoclopramide, either alone or in combination, effective in diminishing pain and nausea?

Bottom line

Parenteral metoclopramide (Reglan) 10mg is somewhat effective when used alone and seems to add to relief when used with other migraine treatments. Given its relatively low cost and its 2-pronged effect on pain and nausea, it should be considered in patients with acute migraine (LOE = 1a)

Reference

Colman I, Brown MD, Innes GD, Grafstein TE, Rowe BH. Parenteral metoclopramide for acute migraine: meta-analysis of randomised controlled trials. BMJ 2004; 329:1369-73.

Study Design

Systematic review

Setting

Emergency department

Synopsis

Metoclopramide (Reglan) was originally used to treat nausea due to gastric stasis associated with acute migraine, as well as to enhance absorption of orally administered drugs. Subsequent studies showed relief of pain with metoclopramide alone. This meta-analysis culled 13 randomised controlled trials from 596 potentially relevant studies identified by a search of several databases and sources. These 13 studies evaluated parenteral metoclopramide, 10mg, to treat acute migraine in adults in an acute setting: emergency departments or headache clinics. The search was thorough and included an attempt to find unpublished research. The articles were screened by two independent reviewers to determine inclusion. As compared with placebo in five small studies enrolling a total of 185 patients, metoclopramide produced significant reductions in headache pain, though the effect was not consistent (number needed to treat = 4; 95% CI, 2.1–95.1). In comparison with other emetics, metoclopramide was as effective — or nearly so — in reducing headache pain and nausea (the study results could not be combined). It was found, in 40 patients, to be as effective as sumatriptan (Imitrex) in the rate of complete pain resolution, significant reduction of pain, or the likelihood of reduction of nausea. The combination of metoclopramide with dihydroergotamine (DHE) was more effective than DHE alone, valproate (Depakene), meperidine (Demerol)/hydroxyzine (Vistaril), Ketorolac (Toradol), and promethazine (Phenergan)/meperidine (Demerol). Drowsiness, restlessness, and dizziness were reported with the use of metoclopramide.

Clinical question

Does a low cholesterol level predict mortality in the elderly?

Bottom line

In the elderly, low cholesterol levels are significantly associated with higher mortality rates. It is possible that this association reflects frailty, malnutrition, or subclinical disease. (LOE = 1b)

Reference

Schupf N, Costa R, Luchsinger J, Tang MX, Lee JH, Mayeux R. Relationship between plasma lipids and all-cause mortality in nondemented elderly. J Am Geriatr Soc 2005; 53:219-26.

Study Design

Cohort (prospective)

Setting

Population-based

Synopsis

These authors identified a random sample of 2277 nondemented Medicare recipients living in northern Manhattan. Each patient underwent blood testing, a health interview, assessment of functional capacity, medical history, physical and neurological examination, and a neuropsychological evaluation. The investigators evaluated the patients at 18-month intervals. The team also used the National Death Index to determine each patient's vital status. At the start of the study, the patients' average age was 76 years (range = 65–98 years), they were mostly women (66%), and were of mixed ethnicity (30% white, 31% black, 38% Hispanic). After an average of three years of follow-up, 291 patients died. The patients with the lowest quartile of total cholesterol, non-HDL-C, and LDL-C were almost twice as likely to die as those in the highest quartile, after adjusting for age, sex, ethnic group, level of education, body mass index, apolipoprotein E genotype, diabetes mellitus, heart disease, hypertension, stroke, diagnosis of cancer, current smoking status, or demographic variables.