POEMs

Patient-Oriented Evidence that Matters

The first POEMs for 2004 are a mixed bunch. They provide evidence that synthetic cannabinoids may be effective for chronic pain, that if we choose to screen for prostate cancer it does not need to be done annually, that there is no evidence that helps to clinically distinguish between viral and bacterial conjunctivitis and that the use of anti-depressants after a stroke reduces mortality. Editor.

Clinical question

Are synthetic cannabinoids effective in the treatment of chronic neuropathic pain?

Bottom line

Synthetic cannabinoids may be effective in the treatment of chronic neuropathic pain. Larger studies are needed to evaluate long-term efficacy, tolerability, and safety. (LOE=1b)

Reference

Karst M, Salim K, Burstein S, et al. Analgesic effect of the synthetic cannabinoid CT-3 on chronic neuropathic pain: a randomised controlled trial. JAMA 2003; 290:1757–762.

Study design

Cross-over trial (randomised)

Setting

Outpatient (specialty)

Synopsis

Although clinically effective, the use of cannabinoids for chronic pain has been limited because of common adverse effects. As a result, safer and potentially equally effective cannabinoid receptor agonists are being developed. CT-3 is a potent analog of tetrahydrocannabinol, the active ingredient in cannabis. A total of 21 patients, aged 29 to 65 years, with a history and physical examination consistent with chronic neuropathic pain of at least six months duration were randomised to two, seven-day treatment periods in a cross-over design. Although the sample size of this study is small, the crossover design greatly strengthens the validity of the conclusions. Two daily doses of CT-3 (four 10mg capsules per day) or identical placebo were given during the first four days and four capsules twice daily were given in the following three days. After a one-week washout period and a one-week baseline period, patients crossed over to the second seven-day treatment period. Neither the patients, their clinicians, nor the investigators were aware of treatment group assignments at any time (concealed allocation assignment and blinded outcomes assessment). Visual analog scales (VAS) were used to rate pain scores obtained three hours after intake of study medication. The mean differences over time for the VAS pain scores in the CT-3-placebo sequence were significantly different from those in the placebo-CT-3 sequence group (mean difference over time in scores between groups = -11.54 vs 9.86, P = .02). Dry mouth and fatigue were reported more often when CT-3 was administered.

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

Clinical question

Is a four-year screening interval as effective as annual screening for prostate cancer?

Bottom line

The four-year rate of developing prostate cancer in screened men between the ages of 55 years and 75 years is pretty low. Although this study can't tell us whether men are better or worse off as a result of screening, it suggests that for those men who choose to be screened, annual screening isn't necessary. Other, smaller studies have similarly found that men with low prostate-specific antigen (PSA) levels don't need annual screening. (LOE=2b)

Reference

van der Cruijsen-Koeter IW, van der Kwast TH, Schröder FH. Interval carcinomas in the European Randomized Study of Screening for Prostate Cancer (ERSPC)-Rotterdam. J Natl Cancer Inst 2003; 95:1462–466.

Study design

Randomised controlled trial (nonblinded)

Setting

Population-based

Synopsis

This team studied more than 17 000 men between the ages of 55 years and 74 years randomised to screening or no screening. This study reports on the cohort of men being screened with rectal examinations, PSA, and ultrasound (n=8350). After the first four years of follow-up, they report on the incidence of prostate cancer as confirmed by a review of the cancer registry. This could underestimate the true incidence of cancer. During the first screening, 412 men were given a diagnosis of prostate cancer; only 25 more cases were detected after enrollment. This translates to an incidence of 21 cases per 1000 person-years among men in the screened arm. Since the intervention group had ultrasound, these data may not reflect what one might find if PSA were used alone.

Clinical question

What signs and symptoms distinguish between viral and bacterial conjunctivitis?

Bottom line

Despite reports in ophthalmologic texts to the contrary, there is no research supporting the usefulness of any signs or symptoms differentiating bacterial from viral conjunctivitis. (LOE=1a)

Reference

Rietveld RP, Weert H, Bindels PJE. Diagnostic impact of signs and symptoms in acute infectious conjunctivitis: systematic literature search. BMJ 2003; 327:789.

Study design

Systematic review

Setting

Outpatient (any)

Synopsis

The authors of this study attempted to perform a systematic review to determine which signs and symptoms best distinguished bacterial from viral conjunctivitis. They did a thorough literature search of four databases, and searched reference lists of relevant studies and textbooks. The search was performed by one person, though the decision to include a study was determined by two researchers. Although they identified 2903 articles, only one study attempted to answer the question, and this study was rejected as being methodologically unsound. It seems that the standard wisdom of what represents a bacterial etiology (papillary conjunctivitis, mucopurulent discharge, or the spread of disease from one eye to the other within 24 to 48 hours) is not based on research findings.

Clinical question

Will treatment with an antidepressant reduce poststroke mortality?

Bottom line

Treatment with either fluoxetine (Prozac) or nortriptyline (Pamelor) for 12 weeks during the first six months after a stroke reduced the mortality of both depressed and nondepressed patients. Although this trial is relatively small, the results certainly suggest that we should strongly consider antidepressant treatment in poststroke patients showing any symptoms of depression or at significant risk for depression (those with family history or personal history of depression). (LOE=1b-)

Reference

Jorge RE, Robinson RG, Arndt S, Starkstein S. Mortality and poststroke depression: a placebo-controlled trial of antidepressants. Am J Psychiatry 2003; 160:1823–829.

Study design

Randomised controlled trial (double-blinded)

Setting

Outpatient (specialty)

Synopsis

Depression commonly occurs in patients who have had an acute stroke. It is currently uncertain whether antidepressant treatment reduces long-term mortality. Patients aged 25 years to 89 years with an acute stroke in the previous six months were randomly assigned (uncertain allocation concealment) to either 12 weeks of fluoxetine, nortriptyline, or placebo. Fluoxetine is contraindicated for patients with an intracerebral haemorrhage and nortriptyline is contraindicated for cardiac conduction abnormalities, so no patients with these conditions were given these corresponding medications. Doses of medications were those commonly used in clinical practice. Depression was defined according to DSM-IV criteria and the Hamilton Depression (Ham-D) rating scale. Of the 104 patients enrolled, 23 (22%) dropped out before completing the 12-week treatment protocol. However, mortality data were obtained for all patients at nine years of follow-up. The dropout rate (33%) was statistically higher in the fluoxetine group. Individuals assessing outcomes were blinded to treatment group assignment. After nine years, a total of 50 (48.1%) of the 104 patients had died. Interestingly, there was no significant association between depression at baseline and long-term mortality: 50% of the patients who died were given a diagnosis of depression at baseline compared with 57.4% who survived. Using intention-to-treat analysis, 59.2% of the patients assigned to antidepressants survived compared with 36.4% who received placebo (P=.03; number needed to treat = four). There was no difference in survival between patients assigned to fluoxetine or nortriptyline. Patients in all groups were similarly treated with standard poststroke medical management. A logistic regression model showed that the reduction in mortality with antidepressants remained significant after controlling for other comorbid conditions.