POEMs

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Screening for Type 2 Diabetes Mellitus: 10-Year Mortality Not Improved

Clinical Question

Are high-risk patients who are screened for diabetes mellitus better off than patients who are diagnosed through the usual means?

Bottom Line

Screening high-risk patients for diabetes provides no 10-year mortality benefit. The findings of this study are consistent with those of another large study of screening for type 2 diabetes (http://www.essentialevidenceplus.com/content/poem/130943 [subscription required]). Perhaps it is time to stop screening patients for diabetes and use our limited resources on endeavors that make a difference, like smoking cessation. (Level of Evidence = 1b)

Reference

Simmons RK, Echouffo-Tcheugui JB, Sharp SJ, et al. Screening for type 2 diabetes and population mortality over 10 years (ADDITION-Cambridge): a cluster-randomised controlled trial. Lancet. *2012; 380(9855):1741-1748.*

Study design: Other

Funding source: Foundation

Allocation: Uncertain

Setting: Outpatient (primary care)

Synopsis

These British researchers conducted a cluster randomized trial of screening for type 2 diabetes. Fifteen general practices were to screen and intensively treat adults with diabetes, 13 practices were to screen and treat patients according to national guidelines, and five practices were left to their own devices. One practice dropped out before screening commenced. Overall, more than 20,000 high-risk adults 40 to 69 years of age were included and followed for an average of 10 years. The authors used national databases to determine if any of the patients had died during the study period. Among the screening practices, 94 percent of potentially eligible patients were invited to participate, 75 percent were screened, and 3 percent were found to have diabetes. The overall death rate in the group of screened patients was 10.5 (per 1,000 person-years) compared with 9.9 in unscreened patients. Additionally, there were no differences in cardiovascular deaths (3.3 and 3.2, respectively) or cancer-related deaths (4.8 and 4.4, respectively).

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Honey Improves Nocturnal Cough in Children

Clinical Question

Can honey decrease nighttime cough and improve sleep in children with upper respiratory tract infection?

Bottom Line

A teaspoonful of honey, given alone or with a noncaffeinated liquid before bedtime, decreases cough frequency and severity while improving the sleep of parents and the child with acute cough. Placebo also works, but not as well. Both (honey and placebo) give parents an active role in their child's well-being without exposing the child to potentially harmful medicines. (Level of Evidence = 1b)

Reference

Cohen HA, Rozen J, Kristal H, et al. Effect of honey on nocturnal cough and sleep quality: a double-blind, randomized, placebo-controlled study. Pediatrics. *2012;130(3):465-471.*

Study design: Randomized controlled trial (double-blinded)

Funding source: Industry and government

Allocation: Concealed

Setting: Outpatient (primary care)

Synopsis

There are a surprising 181 compounds in typical honey. The Israeli investigators ▶

conducting this study recruited 300 children one to five years of age (median age = 29 months) presenting to pediatric practices with nocturnal cough for less than seven days. The parents completed a questionnaire regarding their assessment of the child's cough and sleep difficulty on the previous night. Children with a severity score of at least 3 (out of a possible 7) were randomized, using concealed allocation, to receive a single dose of one of three types of honey or a sweet-tasting placebo (date extract) at bedtime.

Parents of 90 percent of the children completed a follow-up questionnaire the next day. Cough frequency, as reported by the parents, was significantly less in all four groups (including the placebo group), but the decrease was significantly more in all three honey groups. Similarly, cough severity, "bothersomeness," children's and parents' sleep, and combined symptom scores were significantly improved with honey compared with placebo. This was only a single-dose study, and the significant improvement with placebo emphasizes the effect of parents' active role on their impression of their child's symptoms. A Cochrane review also found honey to be better than no treatment and perhaps better than diphenhydramine (Benadryl). There were significantly more dropouts among the children randomized to receive eucalyptus honey or citrus honey, which the authors speculate might be because of the strong taste (the third honey was produced from a mint-pollen honey and had a milder taste). The mechanism of action is unknown but may be a central effect caused by influence on sensory nerves that initiate cough.

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Amoxicillin/Clavulanate During COPD Exacerbations Decreases Symptoms and Delays Subsequent Exacerbations

Clinical Question

Does use of amoxicillin/clavulanate (Augmentin) improve outcomes in patients with exacerbations of mild to moderate chronic obstructive pulmonary disease (COPD)?

Bottom Line

Patients with exacerbations of mild to moderate COPD have a higher rate of cure when given amoxicillin/clavulanate compared with placebo. (Level of Evidence = 2b)

Reference

Llor C, Moragas A, Hernández S, Bayona C, Miravitlles M. Efficacy of antibiotic therapy for acute exacerbations of mild to moderate chronic obstructive pulmonary disease. Am J Respir Crit Care Med. *2012;186(8):716-723.*

Study design: Randomized controlled trial (double-blinded)

Funding source: Foundation

Allocation: Concealed

Setting: Outpatient (primary care)

Synopsis

The 2010 update to the Global Initiative for Chronic Obstructive Lung Disease (GOLD) guideline on management of COPD limits the role of antibiotics in patients with infectious exacerbations; it recommends that patients have purulent sputum plus increased dyspnea or increased sputum volume before receiving antibiotics. However, the data on the role of antibiotics in patients with mild disease are limited. The researchers for this study randomly assigned patients with mild to moderate COPD with exacerbations (at least one of the following: increased dyspnea, increase in sputum volume, or purulent sputum) to receive amoxicillin/clavulanate (500/125 mg three times daily) or placebo. The treating physicians could prescribe corticosteroids in addition to the antibiotic (which happened in approximately 17 percent of patients in each group).

The treating physician evaluated each patient for clinical cure nine to 11 days after treatment. The authors used intention-to-treat to evaluate the outcomes. Approximately 75 percent of patients treated with antibiotics were cured, compared with 60 percent of those treated with placebo (number needed to treat = 8; 95% confidence interval, 5 to 27). Additionally, patients taking antibiotics had a longer time to the next exacerbation compared with patients taking placebo (233 versus 160 days). Two patients stopped taking the antibiotics because of gastrointestinal distress.

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