Short cuts

What's new in the other general journals

Benefits of warfarin after myocardial infarction outweigh the risks

Doctors are often reluctant to start their patients on warfarin even in circumstances when well established guidelines recommend it. They worry about the inconvenience to the patient and that the increased risk of bleeding may offset any benefit. So despite evidence from randomised controlled trials that adding warfarin to aspirin is beneficial in the secondary prevention of myocardial infarction, the treatment has not been adopted widely. A recent meta-analysis provides a more precise estimate of risks and benefits and may stimulate a change in practice.

Ten trials involving over 11 000 patient years of observation met criteria for inclusion, although the lion's share of the data was provided by the two largest studies. Overall, the combination of warfarin and aspirin led to about a halving of risk of myocardial infarction and ischaemic stroke compared with aspirin alone, but the risk of major bleeds more than doubled. The relative risk reduction in myocardial infarction and stroke persists, but because absolute rates decline over time, the greatest benefits are seen in the first three months. The authors reach the unequivocal conclusion that the benefits of adding warfarin far outweigh the risks for most patients. They estimate that for a man at high cardiovascular risk and low bleeding risk, the number needed to treat to prevent a major cardiovascular event is 16 and the number needed to harm is 333.

One limitation is that treatment of patients in studies included in the meta-analysis did not involve stents, so the findings may not apply to people who have been treated with these devices.

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Childhood vaccination doesn't lead to increased risk of other infectious diseases

Some concern has been raised that the increasing number of vaccines given to children, especially multiple antigen vaccines such as the measles, mumps, and rubella vaccine (MMR), could lead to immune dysfunction, resulting in an increased risk of infectious diseases not targeted by the vaccinations. Various biological mechanisms that might mediate such an effect have been proposed, but the crucial question is not about mechanisms but whether the effect really exists.

Using national registry data for children born between 1990 and 2001, epidemiologists in Denmark looked for possible associations between six types of vaccine (*Haemophilus influenzae* type b (Hib), diphtheria-tetanus-inactivated poliovirus, diphtheria-tetanus-acellular pertussis-inactivated poliovirus, whole-cell pertussis, MMR, and oral poliovirus vaccine) and hospitalisation for seven groups of infectious disease (acute upper respiratory tract infection, viral pneumonia, bacterial pneumonia, septicaemia, viral central nervous system infections, bacterial meningitis, and diarrhoea). The only association they found was between Hib vaccine and acute upper respiratory tract infection (rate ratio 1.05, 95% confidence interval 1.01 to 1.08 comparing vaccinated participants with unvaccinated participants). One association out of 42 possible outcomes is well within the limits of what would be expected by chance, and the authors conclude that the study provides no evidence to support a link between either the use of multi-antigen vaccines or cumulative vaccine exposure and increased risk of infectious diseases. It is often hard to prove a negative in epidemiological studies, but here, large numbers, use of a nationwide cohort of children, and the way data on hospitalisation for infectious diseases were collected prospectively make the findings seem particularly robust.

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Radiotherapy improves outcome in patients with locally advanced prostate cancer

Among the many unanswered questions about prostatic cancer is how best to treat patients in whom the tumour extends beyond the margins of surgical resection, breaches the capsule, or involves the seminal vesicles. Results of a trial now suggest that these patients will benefit from radiotherapy after radical prostatectomy.

Investigators in a Europe-wide trial randomised more than 1000 patients either to radiotherapy or to a wait and see policy after their surgery. After a median five years of follow-up, both clinical and biochemical indicators (rising serum levels of prostate specific antigen) were better in the group that had received radiotherapy. Altogether, 74% (95% confidence interval 68.7% to 79.3%) of those receiving radiotherapy remained free of biochemical indicators of tumour progression, compared with 52.6% (46.6% to 58.5%) of those in the wait and see group. Although acute adverse effects from radiotherapy were common, they were rarely so severe that treatment had to be modified.

What really matters, of course, is whether this improvement in biochemical outcome will translate into better rates of symptom-free survival, lower frequency of distant metastases, and decreased mortality. Although the trial started 13 years ago, we shall have to wait longer for the answer. So far there have been too few deaths for a meaningful analysis.

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