Ann Robinson’s research reviews—17 February 2022

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Sleep well to slim down
People who don’t sleep well don’t want to hear how important a good night’s sleep is. And overweight people don’t want to be told they should lose weight. If it were that easy, we’d all be slim and well rested, which clearly isn’t the case. But here’s a study that may actually be helpful.

Eighty overweight adults (BMI 25-30) whose sleep averaged less than 6.5 hours a night were randomised to an individualised sleep hygiene counselling session or a control group and then two weeks of sleep monitoring. The more they slept, the less they ate: sleep duration increased by around 1.2 hours in the intervention group compared with controls, and energy intake fell by 270 kcal/day. The numbers were small, but at least measurements didn’t rely on self-reporting; instead participants used wearable devices to measure sleep duration and a combination of the doubly labelled water method to calculate total energy expenditure and changes in body energy stores using daily weights and imaging to assess changes in body composition. We don’t know how long the sleep benefits lasted for or which components of the counselling session were most effective, although some—such as limiting the use of electronic devices before bedtime—make perfect sense.


Hemiarthroplasty: to cement or not?
It’s time to nail down this controversy: if you fracture your femur and have a hemiarthroplasty (replacement of the femoral head with a prosthesis), would you rather have it cemented in or left uncemented? A total of 1225 patients aged over 60 years who had an intracapsular hip fracture were randomised to cemented or uncemented hemiarthroplasty. There wasn’t much in it, but the cemented group fared slightly better in terms of quality of life (mean EQ-5D utility score 0.371 v 0.315) and lower risk of periprosthetic fracture (0.5% v 2.1%). Mortality at 12 months was similar and high in both groups (23.9% v 27.8%), reflecting the fact that people who breaks their hips are generally frail. Using uncemented stems reduces operating time and the risk of bone cement implantation syndrome in which emboli can enter the circulation and cause widespread and potentially lethal complications. So the jury is still out, with no firm conclusion yet as to which option is best.


Hope for a rare form of ovarian cancer?
Low-grade serous ovarian cancer is relatively rare and was only recognised as an entity in 2004. It tends to affect younger women and be resistant to platinum based chemotherapy. Although the prognosis is theoretically better than for high-grade serous cancers, late presentation and relapse rates of over 70% mean that outcomes are poor and effective therapies are sorely needed. Two previous studies using mitogen-activated extracellular signal-regulated kinase (MEK) inhibitors to block pathways that are often overactive in cancers failed to show significant benefit.

But this randomised study of 260 women with progressive or relapsed disease used a different MEK inhibitor—trametinib. It showed a significant reduction in the risk of disease progression or death by 52% and a fourfold increase in the probability of response to treatment compared with standard treatments, with no significant impact on quality of life. However, behind the rosy headline results lies a grim reality: within six years of the start of recruitment to the study, 88% of the 260 women (mean age 55-56) had stopped their assigned treatment because of disease progression, toxicity, patient choice, or other disease or death.

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NOACs and stroke
Do non-vitamin K antagonist oral anticoagulants (NOACs) increase the risk of intracranial bleeding in patients who are treated with the thrombolytic drug alteplase for ischaemic stroke? This large US retrospective cohort study of over 160 000 patients found that there was no increased risk of intracranial haemorrhage in patients who had used NOACs in the seven days before their stroke compared with those who hadn’t been taking NOACs (3.7% v 3.2%).

Hope for a rare form of ovarian cancer?
Inpatient mortality was reassuringly low and showed no significant difference between NOAC users and non-users (6.3% v 4.9%). Prior NOAC use was significantly associated with better levels of independence and less global disability at discharge from hospital. This wasn’t a randomised trial, and there were several important differences between the NOAC users and non-users which, despite adjustment, may have introduced bias. Despite the study limitations, the results are reassuring and imply that patients who have a stroke can safely receive thrombolysis even if they’ve taken NOACs in the preceding week.


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