Early prostate cancer: Wait no more!

Between 1989 and 1999, researchers in the Scandinavian Prostate Cancer Group Study Number 4 (SPCG-4) randomly assigned 695 men with early prostate cancer to watchful waiting or radical prostatectomy. During 23.2 years of follow-up, 200 of 347 men in the surgery group and 247 of 348 men in the watchful-waiting group died. Of the deaths, 63 in the surgery group and 99 in the watchful-waiting group were due to prostate cancer; a relative risk of 0.56. The number needed-to-treat to prevent one death was 8. The mortality benefit of surgery was largest among men younger than 65 years of age and among those with intermediate-risk of prostate cancer. Radical prostatectomy was also associated with a reduced risk of metastases among older men (N Engl J Med 2014;370:932–42). Is it time to give up watchful waiting for patients with localized prostate cancer?

New class of drugs for type 2 diabetes

Sodium-glucose co-transporter 2 (SGLT2) inhibitors prevent glucose re-absorption in the proximal convoluted tubule and are a new class of drugs for the treatment of type 2 diabetes mellitus. A meta-analysis of 17 randomized, double-blind, placebo-controlled trials assessed the efficacy and safety of these drugs. Pooled analyses showed a significant reduction in glycosylated haemoglobin (HbA1c) (standardized mean difference [SMD]=−0.78%), body weight (overall SMD=−0.59 kg) and blood pressure from baseline with SGLT2 inhibitors. The incidence of hypoglycaemia was comparable to placebo. Adverse events included genital and urinary tract infections. Two drugs in this group—canagliflozin and dapagliflozin—have already been approved by the US Food and Drug Administration (FDA) for the treatment of type 2 diabetes (BMC Endocr Disord 2013;13:58).

Renal artery stenosis: To stent or not to stent?

Investigators in the Cardiovascular Outcomes in Renal Atherosclerotic Lesions (CORAL) study randomized 947 participants with atherosclerotic renal artery stenosis and either systolic hypertension while taking two or more antihypertensive drugs or chronic kidney disease to two groups: medical therapy and renal artery stenting or medical therapy alone. After a median follow-up of 43 months, there was no difference between the two groups in a primary composite end-point consisting of death from cardiovascular or renal causes, myocardial infarction, stroke, hospitalization for congestive heart failure, progressive renal insufficiency, or the need for renal-replacement therapy. Renal artery stenting seems to confer no benefit in atherosclerotic renal artery stenosis (N Engl J Med 2014;370:13–22).

Contralateral mastectomy in BRCA-positive breast cancer

Survival rates among women with BRCA mutation-associated breast cancer were compared between women who underwent contralateral mastectomy and those who did not. This retrospective analysis included 390 women diagnosed with unilateral early-stage breast cancer who had a family history of stages I or II breast cancer and were carriers of BRCA1 or BRCA2 mutations. Patients were initially treated with either unilateral mastectomy (n=209) or bilateral mastectomy (n=181) and followed up for 20 years. During a median follow-up of 14.3 years, 79 women died of breast cancer—18 in the bilateral mastectomy group and 61 in the unilateral mastectomy group. The survival rate for women who had bilateral mastectomy was 88% v. 66% for those who had unilateral mastectomy. In a multivariable analysis, contralateral mastectomy was associated with a 48% reduction in death from breast cancer. This compelling evidence favours contralateral mastectomy in women at high genetic risk of breast cancer (BMJ 2014;348:g226).

Measure blood pressure in both arms

The difference in systolic blood pressure between the two arms was assessed in 3390 participants aged 40 years and older, free of cardiovascular disease at baseline, who were part of the Framingham Heart Study. The mean age of participants was 61.1 years, and 56.3% were women. Increased inter-arm systolic blood pressure difference was present in 317 (9.4%) participants. During a median follow-up time of 13.3 years, 598 participants (17.6%) experienced a first cardiovascular event, including 83 (26.2%) participants with inter-arm systolic blood pressure difference of ≥10 mmHg. Inter-arm systolic blood pressure difference was associated with a significantly increased risk of incident cardiovascular events. This simple clinical measurement may prove to be useful in predicting risk of cardiovascular disease (Am J Med 2014;127:209–15).

Rapid test for diagnosing tuberculosis

The Xpert MTB/RIF assay is an automated nucleic acid amplification test that can detect both Mycobacterium tuberculosis (MTB) complex DNA and rifampicin (RIF) resistance within 2 hours. Over a period of 1 year, researchers randomized adults with symptoms suggestive of active tuberculosis from five primary healthcare facilities in Africa to nurse-performed Xpert MTB/RIF at the clinic (n=744; 185 culture-positive) or sputum smear microscopy (n=758; 182 culture-positive). The median Tbscore, a measure of TB-related morbidity, did not differ between culture-positive patients in the two groups at 2 months or at 6 months. Point-of-care MTB/RIF had higher sensitivity than microscopy (83% v. 50%) but similar specificity (95% v. 96%). More patients in the MTB/RIF group had a same-day diagnosis (24% v. 13%) and initiation of treatment (23% v. 15%). These results confirm the utility of the Xpert MTB/RIF test as a point-of-care test for rapid diagnosis of tuberculosis (Lancet 2014;383:424–35).

Internet addiction

Researchers in South Korea compared 30 patients with internet addiction (IA), 30 with alcohol dependence (AD) and 30 healthy controls. All patients with IA (mean age 22.7 years) were men and addicted to online gaming, spending at least 4 hours every day on this habit. The mean duration of illness was 11.2 years in the IA group and 12.7 years in the AD group. Psychiatric comorbid conditions and personality traits were compared between the three groups. Patients with IA or AD were significantly more depressed and anxious than were controls and showed a lower level of agreeableness, conscientiousness, extraversion, and openness to experience and a higher level of neuroticism. Impulsivity and anger traits were also higher in these patients. These findings were strikingly comparable between those with IA and those with AD, leading the authors to suggest the inclusion of IA as a separate official diagnostic category (Ann Gen Psychiatry 2014;13:6).

VIVEK ARYA