EARLY DETECTION OF HIGH-GRADE PROSTATE CANCER USING DIGITAL RECTAL EXAMINATION IN MEN WITH A LOW PROSTATE-SPECIFIC ANTIGEN LEVEL

This study aimed to determine whether detection of high-grade prostate cancer while still clinically localised on digital rectal examination (DRE) can improve survival in men with a normal prostate-specific antigen (PSA) level. Clinically localised disease on DRE among men with PSA-occult high-grade prostate cancer was associated with improved prostate cancer-specific mortality and all-cause mortality. It was concluded that DRE in older, white men may have the potential to improve survival.


This study from Boston, USA, used the very large Surveillance, Epidemiology and End Results (SEER) database to identify 166 104 men with prostate cancer diagnosed between 2004 and 2007. The analysis studied factors associated with the occurrence of palpable PSA-occult (PSA <2.5ng/ml) Gleason grade 8–10 (aggressive) prostate cancer.

The men most likely to be diagnosed with a palpable aggressive cancer that was not producing PSA due to the degree of malignancy were older and of white race. An alternative reason for the low PSA may be declining testosterone levels in these men. Additionally, if the tumour was locally advanced, prostate cancer-specific mortality was increased three-fold and all-cause mortality was doubled, compared with those tumours clinically localised to the prostate.

The take-home messages from this study are that patients with high-grade tumours may produce less PSA per gram of tumour and therefore the test will be falsely reassuring. Early detection while the tumour is confined to the gland is important. A low testosterone should make us consider performing a DRE, as the PSA may be unreliable in this situation.

Prostate cancer screening in men over 70 years is controversial, but a careful DRE in Caucasian men of this age could be life-saving, not only by detecting PSA-occult, high-grade tumours, but by providing us with an opportunity to diagnose asymptomatic rectal cancers as well.

‘If you don’t put your finger in it – you put your foot in it!’

METABOLIC AND CARDIOVASCULAR OUTCOMES OF FATHERHOOD

The aim of this study was to explore biological and clinical correlates of number of children and possible associations with forthcoming major cardiovascular events in a sample of men with sexual dysfunction. The results support the hypothesis that bond maintenance contexts and fatherhood are associated with an adaptive down-regulation of the
gonadotrophic–gonadal axis, even in a sample of men with sexual dysfunction. The data suggest that the number of children predicts major cardiovascular events, most likely because of an unfavourable, lifestyle-dependent, parenthood-associated behaviour.


In some men ‘the joys of fatherhood’ need to be displaced by ‘the woes of fatherhood’!

This study demonstrated that in the 4045 men seeking help for sexual dysfunction, fatherhood had a negative effect on both metabolic and cardiovascular outcomes. The mean age of the cohort was 52 years, 31.6 per cent had no children, 26 per cent had one child, and 33.4 per cent had two children.

The number of children had a very significant negative impact on testosterone, metabolic and cardiovascular outcomes, penile blood flow and the regulation of the gonadotrophic–gonadal axis. These changes may be related to behaviour and lifestyle changes linked to child rearing.

Longitudinal follow-up performed in a subset of patients confirmed that an increasing number of children was positively associated with major cardiovascular events.

It is interesting to postulate that it might be a natural biological process that the higher testosterone in younger men encourages mating and the subsequent down-regulation of the gonadotrophic–gonadal axis, leading to a decline in testosterone, may support bond maintenance in a longstanding relationship.

However, the negative changes in cardiovascular risk factors associated with fatherhood are a concern, and as clinicians we need to pay attention to the family environment. We are in a strong position to help to promote effective lifestyle changes as well as dealing with the potential opportunity to reduce future cardiovascular risk with effective medications.

ASSOCIATION BETWEEN MARIJUANA USE AND RISK OF TESTIS CANCER

The authors evaluate the relation between testicular germ cell tumour (TGCT) and exposure to marijuana and other recreational drugs using a population-based case–control study. Compared with never-use, ever-use of marijuana had a two-fold increased risk, whereas ever-use of cocaine had a negative association with TGCT. Stratification on tumour histology revealed a specific association of marijuana use with non-seminoma and mixed histology tumours.


MESSAGE FOR THE CLINIC

This population case–control study using structured in–case interviews of 163 men aged 18–35 years diagnosed with testicular cancer between 1986 and 1991 in Los Angeles County demonstrated a specific association between marijuana use and the risk of non–seminoma and mixed testicular tumours (odds ratio 1.94; 95% CI 1.02–3.68). The use of cocaine had a negative association with TGCT (odds ratio 0.54; 95% CI 0.32–0.91).

The incidence of TGCT is on the increase, as is marijuana use, which is highest in males aged 15–20 years in the USA. The constituents of marijuana smoke may act on the endocrine system and perturb the endocannabinoid system and the pituitary–gonadal axis, as well as containing many possible carcinogens.

There are now three epidemiologic studies supporting the link between smoking pot and TGCT, and we should be enquiring about such smoking habits in our patients. This paper also demonstrates that there is a need for basic science research to understand the cause and effect. The apparent association of lesser risk with cocaine is interesting and may be a result of a toxic effect on germ cells. It is a confounder in the study and because drug users may use both drugs, the true effect of marijuana therefore may be greater than demonstrated.

I shall certainly be informing marijuana smokers of the results of this study, to reinforce the usual stop-smoking advice.