

EDITOR'S *choice*



MIKE KIRBY

Visiting Professor, The Prostate Centre, London, writes the 'Message for the clinic'

MALE BALDNESS AND PROSTATE CANCER

This study was performed because male pattern baldness and prostate cancer may share a similar pathophysiological mechanism. Previous studies exploring this association have been inconsistent.

Zhou CK, Pfeiffer RM, Cleary SD, et al. Relationship between male pattern baldness and the risk of aggressive prostate cancer: an analysis of the Prostate, Lung, Colorectal, and Ovarian Cancer Screening Trial. J Clin Oncol 2014; doi:10.1200/JCO.2014.55.4279.

MESSAGE FOR THE CLINIC

This study included 39 070 men from the usual care and screening arm of the participants in the Prostate, Lung, Colorectal and Ovarian Cancer Screening Trial. The men had no cancer diagnosis at the start of follow-up. They were asked about hair loss patterns at the age of 45 years.

The median follow-up was 2.78 years and during that time 1138 incident prostate cancers were diagnosed, with approximately half of them being Gleason score ≥ 7 and/or clinical stage III or greater and/or fatal. The bottom line was, compared with no baldness, frontal plus moderate vertex baldness at the age of 45 years was not significantly associated with overall or non-aggressive prostate cancer, but it was significantly

associated with an increased risk of aggressive prostate cancer with a hazard ratio of 1.39. These estimates were not substantially altered by adjustment for covariates. Other types of baldness were not significantly associated with prostate cancer.

This is interesting because hair follicles and the prostate gland are both androgen responsive and it is well known that men who have a congenital deficiency of 5- α reductase type II, or who were castrated before puberty, do not develop prostate cancer and do not lose scalp hair. Baldness has also been linked with higher levels of dihydrotestosterone and increased expression of the androgen receptor. In addition to this, circulating insulin-like growth factors and hyperinsulinaemia may also play a role in prostate carcinogenesis and baldness, either directly or through interactions with androgens. Hyperinsulinaemia has also been associated with accelerated growth of prostate cancer xenographs and increased prostate cancer risk in two case-controlled studies.

The link with baldness appears to be tenuous and at the moment not strong enough for us to use it in the clinic as a marker. However, it should be a stimulus for more research into the importance of androgens, the androgen receptor and insulin resistance in men with prostate cancer.

METABOLIC SYNDROME AND LUTS

This study evaluated the relationship between metabolic syndrome (MS) and the frequency and severity of lower urinary tract symptoms (LUTS).

Pashootan P, Ploussard G, Cocaul A, et al. Association between metabolic syndrome and severity of lower urinary tract symptoms: observational study in a 4,666 European men cohort. BJU Int 2014; doi: 10.1111/bju.12931.

MESSAGE FOR THE CLINIC

The researchers looked at 4666 male patients aged between 55 and 100 years of age who had consulted their GP during a 12-day period in December 2009. This was an observational study. The International Prostate Symptom Score (IPSS) was used to define the LUTS and the National Cholesterol Education Program/Adult Treatment Panel III definition was used for the MS (the American version).

51.5% of the men met the definition of having the MS and 47% were treated for LUTS. The link between MS and LUTS was statistically significant ($p < 0.001$). The greater the number of components of the MS, the greater the risk of LUTS; and MS was positively correlated with the severity of LUTS in terms of the voiding and storage scores and total IPSS ($p < 0.001$). MS was also positively correlated with prostate volume, and each component of the MS was an independent risk factor for either a raised IPSS or predicting LUTS treatment in the multivariate analysis.

This paper adds to the weight of information relating to this link. In a previous issue of this journal, Rees and Kirby focused on this link, not only with LUTS but also with other urological conditions.¹ The key is that the MS and LUTS are modifiable in a beneficial way by changes in lifestyle, particularly focusing on a healthy diet leading to weight loss and daily exercise, which increases insulin sensitivity. Toxic central abdominal fat associated with an increased weight circumference is the target for intervention; running a tape measure around the waist of men is

an important physical sign, as is the report of a sedentary lifestyle.

We need to take the opportunity in our clinics to move men from contemplation of changing their lifestyle to action, and we know that frequent messages from multiple health professionals can have a powerful effect, as in smoking cessation.

1. Rees J, Kirby M. Metabolic syndrome and common urological conditions: looking beyond the obvious. *Trends Urol Mens Health* 2014;5(3):9–14.

HEALTHY LIVING PROGRAMME FOR FOOTBALL FANS

Football Fans In Training is a weight loss and healthy living programme provided for fans in Scottish professional football clubs under the auspices of the Scottish Premier League trust. This study was performed on the basis that male obesity is increasing and fewer men than women take part in weight loss programmes.

Hunt K, Wyke S, Gray CM, et al. A gender-sensitised weight loss and healthy living programme for overweight and obese men delivered by Scottish Premier League football clubs (FFIT): a pragmatic randomised controlled trial. Lancet 2014;383:1211–21.

MESSAGE FOR THE CLINIC

This was a two-group, pragmatic, randomised controlled trial, which included 747 male football fans aged between 35 and 65 years with a body mass index of $\geq 28 \text{ kg/m}^2$. They were randomly assigned to a weight loss programme delivered by community coaching staff in 12 once-weekly sessions. The intervention group started the programme within 3 weeks

while the comparison group were put on a 12-month waiting list. All the participants were given a weight management booklet.

The primary outcome was the main difference in weight loss between the groups at 12 months. 89% of the intervention group and 95% of the comparison group completed 12-month assessments. There was a 4.94kg difference in weight loss between the groups and the percentage weight loss was 4.36% in favour of the intervention group ($p < 0.0001$). The programme succeeded in attracting men at higher risk of future disease. In the 3 months before starting the programme, only 27 (3.6%) of the men had attended a commercial weight management programme and only 13 (1.7%) a primary care-based programme.

Men on the whole are not keen on group activities, for example, 70% of the participants in group walking programmes are women. Clearly, for football fans, targeting activity at their club is motivating and it did have the desired result. There may be other beneficial effects because we know that for every 10% increase in the ratio of skeletal muscle mass to total body weight, you see a significant reduction in insulin resistance and a similar drop in the risk of pre-diabetes or overt diabetes (approximately 12%).

Fitness does matter. Previous studies have shown that for each one metabolic equivalent increase in exercise capacity, there is a 12% improvement in long-term survival. We do not know if these men continued to be active, but football clubs seem a good place to start!