area of visceral fat. Men whose ratio of visceral fat to subcutaneous fat lay in the upper tercile were more than 14 times more likely to have prostate cancer than those with lower ratios (odds ratio 14.5, 95% CI 4.45–47.19). No relationship was seen between disease stage and body fat distribution.

The authors suggest that the observed relationship between visceral fat and prostate cancer risk might be associated with cytokines secreted by visceral fat cells, steroid hormone imbalances or increased insulin levels. As all the participants in this study were white, von Hafe *et al.* note that the results may not apply to other ethnic groups.

Original article von Hafe P *et al.* (2004) Visceral fat accumulation as a risk factor for prostate cancer. *Obes Res* **12:** 1930–1935

Unstable DNA in cells obtained by prostatic massage associated with cancer

The standard diagnostic indicators of early prostate cancer—serum prostate-specific antigen (PSA) levels and ratios, and digital rectal examinations—are unreliable. In the search for better indicators of low-grade disease, cells manually liberated from the prostate have been examined for various markers. Unfortunately, the sensitivity of markers such as telomerase and ornithine decarboxylase is too low to be clinically useful. Now, a French group has shown that the presence of genetic lesions in prostate cells obtained by prostatic massage is correlated with positive biopsies.

Ninety-nine men with a serum PSA level between 4 and 10 ng/ml and/or abnormalities detected during digital rectal examination underwent prostatic massage. Prostatic cells sufficient for extraction of DNA were collected from the post-massage voided urine in 81 cases. Blood leukocyte DNA was also collected. DNA from these two cell types was comparatively examined for LOSS OF HETEROZYGOSITY (LOH) at six 'hotspot' loci.

At least one allelic deletion was detected in the prostatic DNA of 57 patients; 33 of these had biopsy-confirmed prostate cancer. Of the 25 men in whom no LOH was detected, 5 had prostate cancer. The sensitivity of LOH for detection of prostate cancer (87%), but not the specificity (44%), exceeded that of a free:total PSA ratio <15% (55% and 74%, respectively).

The validity of the LOH test using cells obtained via prostatic massage was confirmed by comparison with LOH of corresponding cells of tumors surgically excised from 19 men. Identical patterns of LOH were evident in 71% of samples, and similar patterns in 86%. The authors suggest that determination of LOH following prostatic massage is a useful, minimally invasive method of identifying candidates for prostate biopsy.

Original article Thuret R *et al.* (2005) Clinical relevance of genetic instability in prostatic cells obtained by prostatic massage in early prostate cancer. *Br J Cancer* **92:** 236–240

GLOSSARY

LOSS OF HETEROZYGOSITY (LOH) A 1.3× difference in relative intensity between an allele in genetic material from two different sources (e.g. prostatic cells and blood leukocytes)