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other risk factors for prostate cancer showed that 13 patients had cancerous nodules. PMI detected the abnormality in 10 of the 13 patients, whereas DRE identified only 6 of the cancers. PMI was consistent with all 8 biopsynegative cases, while DRE produced one false-positive result.

The authors conclude that the ability of PMI to produce images of the prostate gland and its internal structures could be useful in detecting tissue abnormality and in active surveillance of prostate cancer.

**Original article** Weiss RE *et al.* (2008) Prostate mechanical imaging: a new method of prostate assessment. *Urology* **71:** 425–429

## PSA level and prostate volume show significant correlation in Korean men

Previous studies have shown that there is an association between serum PSA level and prostate volume in men without prostate cancer. Most of these studies, however, were performed in Western populations. Evidence suggests that an association between PSA level and prostate volume might differ between white men and Asian men; therefore, Lee and colleagues investigated this relationship in a single-center study of 707 Korean men with biopsy-proven benign prostatic hyperplasia (BPH).

Patients with raised serum PSA level (3–10 ng/ml) or abnormal digital rectal examination underwent transrectal ultrasound-guided biopsy to confirm BPH. To avoid using data from patients with prostate cancer, participants with a PSA level >10 ng/ml were excluded. Prostate volume was measured with ultrasonography.

The mean age of the 707 patients was 62.7 years (range 38–83 years), and the mean PSA level was 5.1 ng/ml (range 0.27–9.8 ng/ml). PSA level significantly correlated with prostate volume in all age categories (<50 years, 50-59 years, 60-69 years and  $\ge 70$  years). The strongest correlation was reported in the 60-69 years subgroup (r=0.47, P<0.001), and the weakest correlation was observed in the <50 years subgroup (r=0.29, P=0.034); thus, an age-dependent increase in correlation between PSA level and prostate volume was apparent.

The authors conclude that the relationship between PSA level and prostate volume is consistent with studies in men of other ethnicities; however, further basic research is required in order to understand fully the interethnic differences in BPH pathophysiology.

**Original article** Lee SE *et al.* (2008) Relationship of prostate-specific antigen and prostate volume in Korean men with biopsy-proven benign prostatic hyperplasia. *Urology* **71:** 395–398

## Absence of Oxalobacter formigenes is associated with formation of kidney stones

Oxalobacter formigenes is a Gram-negative, anaerobic bacterium that breaks down oxalate in the colon. Small studies have suggested that the absence of *O. formigenes* might result in increased urinary oxalate levels and, thus, lead to the formation of calcium oxalate kidney stones. Kaufman *et al.* have determined, in a large population, that lack of *O. formigenes* colonization is associated with an increased risk of kidney stone formation but not necessarily with urinary oxalate excretion.

This case–control study included 247 patients (aged 18–69 years) who were being treated for calcium oxalate stones at a urology practice at one of four hospitals in the US from January 2004 to August 2006, and 259 controls without stone disease who were matched for age, sex and geographical region. The participants' stool samples were collected and cultures were grown in an *O. formigenes*-selective medium. Presence of the bacterium was then determined by use of an oxalate precipitation assay.

O. formigenes colonization was less prevalent among patients with kidney stones than among controls (17% vs 38%, multivariate odds ratio 0.3, 95% CI 0.2–0.5). This relationship was consistent regardless of age, sex, ethnicity, region, dietary oxalate consumption or previous use of antibiotics. Among a subset of participants who submitted 24h urine samples (139 patients and 138 controls), urinary oxalate levels were positively associated with an increased risk of developing kidney stones ( $P_{\rm trend}$ =0.002); however, urinary oxalate levels were not related to the presence or absence of O. formigenes.

**Original article** Kaufman DW *et al.* (2008) *Oxalobacter formigenes* may reduce the risk of calcium oxalate kidney stones. *J Am Soc Nephrol* [doi:10.1681/ASN.2007101058]