

The authors call for further studies to determine the optimum regimen for antioxidant therapy in ESWL-treated patients.

**Original article** Al-Awadi KA *et al.* (2008) Treatment of renal calculi by lithotripsy: minimizing short-term shock wave induced renal damage by using antioxidants. *Urol Res* 36: 51–60

## Cell phone use might impair semen quality

There have been many reports that radio-frequency electromagnetic radiation, such as that emitted by cell phones, can have adverse effects on the brain, heart, endocrine system, and tumorigenesis. Electromagnetic radiation reduces sperm motility, but the association between cell phone use and semen quality remains unclear. Agarwal and colleagues carried out an observational study to investigate the effects of cell phone use in 361 men (mean  $\pm$  SD age 31.81  $\pm$  6.12 years) who were assessed for infertility at a male-infertility clinic.

The men were grouped according to their self-reported daily cell phone usage (talk time): 40 men reported no use; 107 men reported <2 h of use; 100 men reported 2–4 h of use; and 114 men reported >4 h of use. Semen analysis was performed according to WHO guidelines. The authors reported an inverse correlation between daily cell phone usage and semen quality (sperm count, motility, viability and normal morphology; all  $P < 0.001$ ). In clinical practice, patients are usually classified as having either a 'normal' or 'abnormal' sperm count; however, the correlation between increasing cell phone use and decreasing semen quality persisted in both oligospermic and normospermic men. The authors conclude that the deleterious effects of cell phone use on semen parameters might not depend on initial semen quality.

Agarwal and colleagues note that electromagnetic radiation might disrupt spermatogenesis via thermal effects, direct effects of electromagnetic radiation on tissues or DNA, or a combination of these factors. Follow-up studies are planned, to establish a causal relationship.

**Original article** Agarwal A *et al.* (2008) Effect of cell phone usage on semen analysis in men attending infertility clinic: an observational study. *Fertil Steril* 89: 124–128

## Surgical removal of testicular remnants in patients with congenital anorchia

The role of exploratory surgery in the management of patients with congenital anorchia ('vanishing testes syndrome') remains controversial because of uncertainty over the prevalence of viable germ-cell elements within testicular remnants.

Storm and colleagues retrospectively reviewed the records of 56 patients with congenital anorchia who underwent laparoscopic removal of testicular remnants at one of two US centers during 1994–2006. Mean patient age was 44.5 months (range 11–216 months). All remnants were successfully removed, although one patient developed a scrotal hematoma that resolved with conservative management.

Histological analysis revealed viable germ-cell elements in 8 (14%) of the testicular remnants; seminiferous tubules without germ-cell elements were identified in a further 4 (7%) specimens. The mean ages of patients whose testicular remnants contained viable germ-cell elements and seminiferous tubules without germ-cell elements were 16.5 months and 28 months, respectively. What the fate of these elements would be if testicular remnants were left *in situ* is not known; the authors suggest that these tissues could potentially undergo malignant transformation. Storm and colleagues consequently advocate surgical excision of testicular remnants, and suggest that their laparoscopic removal is an effective and minimally invasive approach to management of patients with congenital anorchia.

**Original article** Storm D *et al.* (2007) Histologic evaluation of the testicular remnant associated with the vanishing testes syndrome: is surgical management necessary? *Urology* 70: 1204–1206

## Plasmakinetic resection of the prostate has advantages over transurethral resection

Transurethral resection of the prostate (TURP) is the standard surgical treatment for benign prostatic hyperplasia (BPH); however, the procedure is associated with complications including bleeding and transurethral resection syndrome. A new surgical technique—plasmakinetic resection of the prostate (PRP)—rapidly