

the risk of adverse drug reactions. Further study of this novel approach is warranted.

**Original article** Naito S *et al.* (2008) Prevention of recurrence with epirubicin and *Lactobacillus casei* after transurethral resection of bladder cancer. *J Urol* **179**: 485–490

## Postprostatectomy incontinence: good 1-year results for myoblast and fibroblast injections

Patency of the rhabdosphincter is a crucial determinant of continence after radical prostatectomy. In contrast to other interventions that treat postprostatectomy incontinence, injection of autologous myoblasts and fibroblasts directly addresses the loss of striated muscle cells from the rhabdosphincter, and can potentially restore normal function and anatomy. In their paper published in *The Journal of Urology*, Mitterberger and colleagues report 1-year outcomes of 63 patients who received myoblast and fibroblast injections to treat postprostatectomy urinary incontinence. In all patients, the interval between prostatectomy and myoblast–fibroblast therapy was  $\geq 1$  year.

Each patient underwent transurethral ultrasound-guided injection of autologous myoblasts (mean  $2.8 \times 10^7$  cells) and fibroblasts (mean  $3.8 \times 10^7$  cells, suspended with collagen to prevent migration), cultured from biceps muscle biopsy samples. No severe adverse effects of injection were reported.

At 1 year, 41 participants were completely continent; a further 17 patients had improved incontinence scores following treatment. No deterioration of continence was observed in the remaining five patients. In addition to improved incontinence scores, participants also showed improvements in quality of life scores, rhabdosphincter thickness and contractility, and urodynamic parameters.

The authors conclude that the improvements observed after myoblast–fibroblast therapy are attributable to regeneration of the urethral submucosa and rhabdosphincter, not just to a bulking effect of the injections. They emphasize the importance of careful patient selection

and intraoperative ultrasonography to ensure precise application of the cultured cells.

**Original article** Mitterberger M *et al.* (2008) Myoblast and fibroblast therapy for post-prostatectomy urinary incontinence: 1-year followup of 63 patients. *J Urol* **179**: 226–231

## Time to biochemical failure predicts distant metastases and prostate-cancer-specific mortality

Biochemical failure after initial treatment in patients with prostate cancer is an indicator that further treatment may be required, but deciding for whom and how quickly is sometimes problematic. In this study, Buyyounouski *et al.* investigated whether the interval to biochemical failure (IBF) might be a better predictor of clinical outcome than the American Society of Therapeutic Radiation Oncology (ASTRO) definition, and whether IBF could be used to predict for more-aggressive disease.

A total of 1,174 patients with prostate cancer treated by three-dimensional conformal radiotherapy only were examined, and 211 were identified as having biochemical failure (i.e. post-treatment PSA level  $\geq$ PSA nadir plus 2 ng/ml—the current ASTRO consensus definition). Statistical analysis revealed that an IBF of  $<18$  months was an independent predictor of distant metastasis. Other independent predictors of distant metastasis included a Gleason score of 7–10, a PSA nadir  $\geq 2$  ng/ml, and decreasing radiation dose. In addition, multivariate analysis showed that an IBF of  $<18$  months was an independent predictor of prostate-cancer-specific mortality.

The authors conclude that the IBF could be used to identify men at high risk of clinical failure and death. Those with an IBF of less than 18 months might benefit from aggressive salvage therapy or from participation in a clinical trial.

**Original article** Buyyounouski MK *et al.* (2007) Interval to biochemical failure highly prognostic for distant metastasis and prostate cancer-specific mortality after radiotherapy. *Int J Radiat Oncol Biol Phys* **70**: 59–66