

CONCLUSIONS: These findings show that single human renal cells grown in a 3-dimensional culture system are able to generate kidney structures. The cells constituting these structures maintained the expression of renal cell-specific markers. This system may ultimately be developed into an efficient cell-based therapy for patients with ESRD.

A phase II study of neoadjuvant erlotinib (Tarceva) in patients with muscle-invasive bladder cancer undergoing radical cystectomy: Preliminary results

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INTRODUCTION: This study seeks to evaluate the clinicopathological efficacy of neoadjuvant erlotinib (Tarceva)—an EGFR inhibitor—for invasive urothelial carcinoma of the bladder in patients undergoing radical cystectomy.

METHODS: Patients selected for study will include those with histologically confirmed muscle invasive bladder cancer (cT2) who have undergone initial TURBT. This trial evaluated the effect of neoadjuvant erlotinib (150 mg qd \times 4 weeks) before cystectomy on the pathological complete response rate (P0 rate). Correlative molecular study was also performed on TURBT and cystectomy tissue samples in the first 10 patients.

RESULTS: 20 patients have undergone neoadjuvant erlotinib therapy followed by radical cystectomy. On surgical pathology, 6 patients were pT0, 9 \leq pT2, 4 pT3/4, and 1 node positive (pT0N1). Overall pT0 rate was 30%, organ-confined rate 70%, and LN-positive rate 5%. At a median follow-up of 12 months, 2 patients have recurred and 1 has died of other causes (MI). Erlotinib was tolerated in all patients, with 11 having a drug rash and 1 with diarrhea. Interestingly, all pT0 patients had a rash and 10/11 patients with a rash had organ-confined disease. (Erlotinib-associated rash has been associated with better DSS in lung cancer patients.) Correlative studies—including mRNA extracted from TURBT and cystectomy specimens evaluating gene expression—have shown a lower expression of HRAs, p85, and FGFR3 in pT0 patients, suggesting that these pathways may play a role in cellular survival beyond typical EGFR pathways.

CONCLUSIONS: The EGFR-inhibitor erlotinib, when given neoadjuvantly, may have beneficial effects on operative pathology in patients undergoing cystectomy for invasive bladder cancer.

Racial differences in prostate-specific antigen in hypogonadal men treated with testosterone replacement therapy

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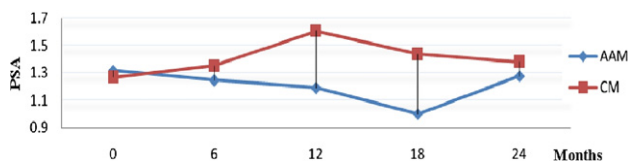
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INTRODUCTION: Population-based studies have shown that African American men (AAM) have higher prostate-specific antigen

(PSA) levels than Caucasian men (CM). Although not fully elucidated, studies examining the effect of testosterone replacement therapy (TRT) on PSA level suggest a small initial increase in PSA. Racial differences in PSA changes in hypogonadal men treated with TRT have not been studied.

METHODS: 75 hypogonadal AAM and CM were followed up for 34 ± 3.5 months after initiating TRT. All had a normal baseline PSA (prior to TRT) and underwent routine investigations, including body mass index, hematocrit, lipid profile, and liver function tests. Total testosterone (TT) and PSA levels were assessed every 6 months. Patients diagnosed with prostatitis or prostate cancer during treatment were excluded.

RESULTS: For 16 AAM, the average age at diagnosis of hypogonadism was 53.5 years, compared with 57.7 years in 59 CM. Pretreatment and posttreatment TT was 219 ng/dL and 310 ng/dL in AAM and 247 ng/dL and 497 ng/dL in CM. Symptomatic response was 81% in AAM and 93% in CM. Baseline PSA was 1.32 ± 0.78 ng/L in AAM and 1.27 ± 1.04 ng/L in CM ($p=0.8$). At 6-month intervals, the change in PSA in hypogonadal AAM versus CM treated with TRT is displayed in Figure 1.



CONCLUSIONS: We observed a younger age at presentation, a less robust normalization of TT, and a lower symptomatic response in hypogonadal AAM compared with CM. There was no difference in baseline PSA and a slight decrease in the PSA of AAM in 6-month intervals over 2 years of treatment compared with CM.

Incidence of Foley catheter-related urethral injury in a tertiary referral center

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INTRODUCTION: Traumatic urethral catheterization may cause significant urethral injury and add to patient morbidity. We assessed the incidence and complications of catheter-related urethral injury at our facility, as well as cost of complications.

METHODS: This was an IRB-approved retrospective review of electronic medical records and billing databases between the years 1998 and 2007 at a single institution. All patients were male and at least 18 years of age. ICD-9 codes and text descriptive identifiers were utilized to identify catheter-related injuries. Patients diagnosed with UTI, cystitis, and/or septicemias within 2 weeks of urethral injury were identified. CPT codes were used to identify patients requiring surgical procedures following injury. A cost analysis was performed to estimate financial consequence.