

Temsirolimus prolongs survival of patients with metastatic renal cell carcinoma

Interferon (IFN)- α is a widely used agent for the treatment of metastatic renal cell carcinoma (RCC), but it has limited efficacy and considerable toxicity. Temsirolimus, an inhibitor of mammalian target of rapamycin kinase, has anti-proliferative and anti-angiogenic properties. Encouraging results were seen in phase I and II studies of temsirolimus in patients with metastatic RCC, a tumor characterized by unregulated angiogenesis. Hudes *et al.*, therefore, conducted a multicenter, phase III trial that compared IFN- α alone with either temsirolimus alone or IFN- α plus temsirolimus for the treatment of patients with newly diagnosed metastatic RCC.

Patients ($n=626$) with poor-prognosis metastatic RCC who had not previously received systemic treatment were randomly assigned to IFN- α alone (3 million U subcutaneously three times weekly in week 1, increasing to 18 million U three times weekly by week 3 if tolerated), temsirolimus alone (25 mg once-weekly by intravenous infusion), or IFN- α (6 million U subcutaneously three times weekly) plus temsirolimus (15 mg once-weekly).

Patients treated with temsirolimus alone had significantly improved overall survival compared with patients who received IFN- α alone (hazard ratio for death 0.73, 95% CI 0.58–0.92; $P=0.008$). Combination therapy did not result in significantly better overall survival than that achieved with IFN- α alone. The temsirolimus-alone group had fewer serious adverse effects than the IFN- α group, although some less serious adverse effects, such as hyperglycemia and hyperlipidemia, were more common in the temsirolimus group.

Compared with IFN- α alone, temsirolimus moderately improved overall survival in patients with very advanced RCC and might, therefore, also benefit patients with less advanced disease.

Original article Hudes G *et al.* (2007) Temsirolimus, interferon alfa, or both for advanced renal-cell carcinoma. *N Engl J Med* 356: 2271–2281

The effect of cleaning on midstream urine collection contamination in children

Midstream urine specimens are used to diagnose urinary tract infections in children.

Accurate diagnosis is essential to guarantee correct therapy and prevent unnecessary treatment and hospital admission in uninfected children. Vaillancourt and colleagues carried out the first randomized trial in toilet-trained children to investigate the effect of cleaning on bacterial contamination rates of midstream urine specimens.

Between 1st November 2004 and 1st October 2005, all toilet-trained children between the ages of 2 and 18 years who presented to the pediatric emergency department and required midstream urine sample were eligible for inclusion in the study. Parents were asked for consent and their children were then randomized to cleaning or not cleaning the perineum with soap at the start of each week. Intention-to-treat analysis was used to determine the risk of a contaminated urine culture and the risk for positive urinalysis.

In total, 350 children were enrolled in the study (211 girls and 139 boys). In the whole study population, the total prevalence of urinary tract infections was 7%. In the cleaning group the rate of contamination was 7.8% (14 of 179) versus 23.9% (41 of 171) in the noncleaning group. Children in the noncleaning group were more likely to have a positive urinalysis (36.8%; 63 of 171) than children in the cleaning group (20.6%; 37 of 179).

The authors recommend that before collecting a midstream urine sample, toilet-trained children should have their perineum cleaned with soap to reduce the risk of unnecessary treatment.

Original article Vaillancourt S *et al.* (2007) To clean or not to clean: effect on contamination rates in midstream urine collections in toilet-trained children. *Pediatrics* 119: 1288–1293

A nomogram to predict seminal vesicle invasion in prostate cancer patients

Because of the risk of seminal vesicle invasion (SVI), removal of the seminal vesicles is part of standard radical prostatectomy technique. Seminal vesicle removal, however, has detrimental effects on erectile and urinary function, and might be unnecessary in patients at low risk of SVI. Gallina *et al.* have, therefore, developed a nomogram to predict the probability of SVI in patients undergoing radical prostatectomy.