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Letter to the Editor

Re: "Monopolar vs. bipolar transurethral resection for nonmuscle invasive bladder carcinoma: A post hoc analysis from a randomized controlled trial"

Keywords: Bipolar; Monopolar; Transurethral resection; Nonmuscle invasive bladder tumor (TURB); Urothelial carcinoma

To the Editor

The authors have published a valuable article that compares safety and efficacy between monopolar transurethral resection of bladder (mTURB) and bipolar (bTURB) for patients with primary nonmuscle invasive bladder cancer. They have found no evident advantages of bTURB over mTURB with respect to operation time, perioperative and postoperative complication rates, and recurrence rates at 12 months [1]. The mainstay for the diagnosis and initial treatment of bladder cancer is TURBT, aiming at reaching a definitive diagnosis and removing all visible lesions including a part of underlying muscle [2]. Monopolar energy systems were widely used as energy source of the cutting loop in the treatment of bladder tumors. The urologists are familiar with bipolar transurethral resection of the prostate since many years. There are certain advantages of bTURBT especially for large bladder tumors (>5 cm). Massive fluid absorption, particularly during TUR of large bladder tumors, can result in TUR syndrome which is a potentially fatal complication, especially in elderly patients with significant comorbidities [3]. A bipolar current has better hemostatic capacity compared with a monopolar current because it allows deep coagulation and has a cut and seal effect [4]. Although it was shown in many studies that the incidence of postoperative hemostatic procedures and transfusion rates were similar between 2 groups, bTURBT provided a bloodless operation field, which can lead to improvement of tumor clearance and decrease in occurrence of complications [4,5]. Rosso et al. reported that the shorter intraoperative time of resection in the bTURBT group should be attributed to the more efficient property of bipolar resection in cutting and simultaneously controlling bleeding, when compared with the monopolar procedure [2]. A major concern for most urologists is to achieve complete removal of the bladder tumor without any dangerous complications [6]. Aggressive, deep resection or obturator reflex that results in violent adduction of the leg during the resection may cause the injury or even perforation of the bladder wall [7]. Different tumor locations and anesthesia techniques have significantly on the occurrence of obturator jerk. Spinal anesthesia without obturator block carries higher risk than general anesthesia for obturator jerk. In order to prevent this reflex, obturator nerve block before beginning TURBT can be especially requested for bladder tumors which originate from lateral wall. In our recent prospective, randomized study comparing short-term outcomes and complications of mTURB and bTURB, we have found that bTURBT is superior to mTURBT in terms of obturator jerk and bladder perforation [8]. In conclusion, we believe that bTURBT is a suitable treatment approach in patients with nonmuscle invasive bladder cancer.

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