

INCIDENCE OF OVERACTIVE BLADDER AFTER ROBOT-ASSISTED LAPAROSCOPIC RADICAL PROSTATECTOMY AND ASSESSMENT OF THE ASSOCIATED RISK FACTORS.

Hypothesis / aims of study

Robot-assisted laparoscopic radical prostatectomy (RALP) has fewer complications than the conventional techniques. However, cases of urinary incontinence have still been observed with RALP. Furthermore, although many reports on postoperative urinary incontinence have been published, only a few of these reports focused on the occurrence of overactive bladder (OAB). In the present study, we aimed to assess the incidence of OAB after RALP and the associated risk factors.

Study design, materials and methods

In this study, we enrolled 168 patients who underwent RALP between May 2011 and May 2013 and were followed up postoperatively for at least 6 months. We divided these patients into 3 groups as follows: the control group, in which OAB was not observed either preoperatively or postoperatively; the de novo group, in which OAB occurred postoperatively; and the OAB group, in which symptoms of OAB were present preoperatively. Thereafter, we examined preoperative blood laboratory examination data, uroflowmetry results, international prostate symptom score (IPSS), overactive bladder symptom score (OABSS), surgical duration, blood loss volume, prostate weight, and postoperative incidence of OAB.

Results

The control, de novo, and OAB groups comprised 37, 83, and 48 patients, respectively. No significant differences in blood laboratory examination data, maximum flow rate, residual urine volume, IPSS, OABSS, blood loss volume, and prostate weight were observed between the groups. Compared with the control group, the vesicourethral anastomosis time was significantly longer in the de novo group. Moreover, in the de novo group, the IPSS and prostate weight were significantly greater in 40 patients whose OAB improved within 6 postoperative months than in the patients who showed no improvement.

Interpretation of results

Vesicourethral anastomosis time correlated with the incidence of OAB after RALP. This correlation may reflect that long procedural time can lead to damage of the vesicourethral anastomosis portion and bladder trigone. Thus, we considered that long anastomosis time increased the occurrence of OAB after RALP.

Meanwhile, large prostate weight and high IPSS may reflect the presence of bladder outlet obstruction (BOO). Considering that BOO can be relieved by performing RALP, improvement of de novo OAB presenting with BOO is highly possible during follow-up.

Concluding message

Vesicourethral anastomosis time contributed to the incidence of OAB after RALP. Moreover, the condition of patients with postoperative OAB will likely improve if they have high preoperative IPSS and prostate weights. Development of minimally invasive surgical procedures for the bladder neck may contribute to the reduction of the risk of postoperative OAB.

Disclosures

Funding: none **Clinical Trial:** No **Subjects:** HUMAN **Ethics not Req'd:** This is the retrospective study **Helsinki:** Yes **Informed Consent:** Yes