OBJECTIVE: To determine whether a short interval (≤2 weeks) between 12-core prostate biopsy and laparoscopic radical prostatectomy (LRP) affects perioperative parameters and the outcome of surgery.

METHODS: This retrospective study included 102 cases of prostate cancer treated by LRP after 12-core prostate biopsy from January 2012 to December 2016. Based on the interval between prostate biopsy and LRP, we divided the patients into three groups: ≤2 wk (n = 35), >2−6 wk (n = 21), and >6 wk (n = 46). The patients averaged 69.87 (59−84) years in age, 24.99 (15.62−33.14) kg/m2 in the body mass index (BMI), 24.41 (0.41−111.78) μg/L in the baseline PSA level, 56.05 (15.97−216.52) ml in the prostate volume, and 7.51 (6−9) in the Gleason score. We analyzed the clinical data, perioperative parameters and outcomes of surgery, and compared them among the three groups of patients.

RESULTS: Operations were completed successfully in all the 102 cases without transferring to open surgery. There were no statistically significant differences among the three groups of patients in age, BMI, baseline PSA level, prostate volume, Gleason score, or T stage, nor in the operation time, estimated intraoperative blood loss, blood transfusion rate, intestinal injury, positive incision margin rate, or urinary continence rate at 3 months after surgery.

CONCLUSIONS: Laparoscopic radical prostatectomy at ≤2 weeks after 12-core prostate biopsy is safe and effective in the treatment of prostate cancer and does not affect the perioperative parameters and outcomes of surgery.

KEYWORDS: 12-core prostate biopsy; interval time; prostate cancer; radical prostatectomy; laparoscopy

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