INTRODUCTION and OBJECTIVE

➢ The impact of zonal origin of the tumor on the prognosis after radical prostatectomy has been controversial.
➢ Few previous reports about clinical and pathological features of anterior prostate cancers, because prostate cancer of anterior location has been recognized as infrequent and indolent in western men.
➢ We investigated the influence of tumor location (anterior vs. posterior) on biochemical recurrence (BCR) after laparoscopic radical prostatectomy (LRP).

METHODS

➢ We reviewed 1082 patients undergoing LRP between 2005 and 2015, including 638 patients with pathological data on the index tumor location who did not receive neoadjuvant/adjuvant therapy.
➢ We defined the largest lesion as the index tumor if there were several masses.
➢ BCR was defined as PSA >0.2 ng/mL.
➢ A horizontal line was drawn at the level of the urethra. Index tumors were categorized as anterior group according to the criteria as more than half of the index tumor existed as anterior group.
➢ We compared clinical and pathological characteristics, and evaluate the impact on biochemical recurrence between anterior and posterior group. Between group differences of the BCR rate were examined by Kaplan-Meier analysis and the Cox proportional hazards model.

RESULTS

➢ The anterior group had a tendency of higher PSA, higher GS, higher pathological stage and lower rate of seminal vesicle invasion. (Table1)
➢ The anterior group had higher GS, stage and larger tumor size because the anterior tumor may be later diagnosed.

CONCLUSIONS

The location of index tumors could be a predictor of biochemical recurrence in prostate cancer patients after laparoscopic radical prostatectomy.