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ANALYSIS THE EFFECT OF LHRH AGONIST ON THE PROSTATE VOLUME AND VOIDING SYMPTOM IN THE PROSTSTE CANCER PATIENTS

Hypothesis / aims of study

The prevalence of prostate cancer increased with age. It is known that prostate cancer was treated by several methods such as hormone therapy, radiation therapy, surgical therapy, minimal invasive therapy and active surveilance. Hormone therapy using LHRH agonist injection is one of the most popular treatments in prostatic cancer. Patients who undertaken hormone therapy decrease PSA level and tumor volume. But, there are rare reports about lower urinary symptoms changes for hormone treatment patients. We studied to evaluate the change of lower urinary tract symptoms and prostate parameter in the in the hormone treated prostatic cancer patients

Study design, materials and methods

The records were obtained from a retrospective database who underwent LHRH agonist injection (Leuprolide Acetate Depot 3.75mg) after prostate cancer diagnosis from January 2013 to January 2016. Sex, age, height, weight, International Prostate Symptom Score, overactive symptoms score and uroflowmetry were assessed before treatment, at 3 months and 6 months. Prostatic size was measured at before treatment and 6 months after treatment by transrectal prostate ultrasonography. There are excluded neurogenic bladder, bladder stone, diabetic cystopathy, previous pelvic operation, previous prostate and/or urethral operation history patients. The difference of lower urinary tract symptoms and prostate parameter before and 6 months ($P < 0.05$)using the paired sample t test.

Results

	Before Treatment	6 months	*p*
Qmax(ml/s)	10.1±5.7	14.3±8.6	0.078
Voided vol.(ml)	188.6±102.7	197.8±179.8	0.431
Residual urine(ml)	96.8±108.4	42.2±69.2	0.033
PSA(ng/dl)	160.1±293.5	0.6±1.2	0.459
Prostatic vol.(gm)	38.6±16.8	20.5±9.8	0.001

Interpretation of results

20 patients (75.5±7.9 year) with hormone treated prostatic cancer patients were enrolled. Residual urine volume and prostatic size were changed significantly with hormone treatment. The score of IPSS was improved, but not significantly.

Concluding message

Hormone treatment in prostatic cancer patient decreased prostatic size and residual urine volume. It is needed further large-scale prospective study for the changes of lower urinary symptoms and prostatic parameter in prostatic cancer patients.

References

1. Benign prostatic hyperplasia treated by castration or the LH-RH analogue buserelin: a report on 6 cases. Eur Urol 1986;12(5):318–21.

Disclosures

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