

Awa Y¹, Yamanishi T², Yamaguchi C³, Yamamoto K¹, Ito T⁴, Yamamoto T⁴, Riu Z⁴, Uchiyama T⁴, Skakibara R⁴, Naya Y¹, Suzuki H¹, Ichikawa T¹

1. Department of Urology, Chiba University, School of medicine, 2. Department of Urology, Dokkyo University, School of medicine, 3. Department of Physiology Examination, Chiba University, School of medicine, 4. Department of Neurology, Chiba University, School of medicine

INFLUENCE FOR A LOWER URINARY TRACT OF RADIOTHERAPY PERFORMED UTERINE CERVICAL CANCER POSTOPERATIVELY

Hypothesis / aims of study

In the uterine cervical cancer patient, radiotherapy is often performed as additional treatment after a radical operation, but the lower urinary tract symptom as a side effect can occur. We investigated it about influence of radiotherapy after uterine cervical cancer operation.

Study design, materials and methods

The 28 female patients (50.5 ± 10.6 years old) were divided into two groups. The first was only-surgery group, the others was radiotherapy addition group. Based on medical records and urodynamic study records, we investigated about each volume of first desire to void, maximum desire to void, the urinary flow rate, residual urine volume and bladder compliance.

Results

The mean age of only-surgery group was 53.5 ± 10.0 years old, and radiotherapy addition group was 47.5 ± 10.8 years old (p=0.189). The mean volume of the first desire to void was 280.9 ± 180.4ml, 180.3 ± 108.8ml(p=0.10), and the volume of the maximum desire to void was 425.6 ± 157.2ml, 332.8 ± 187.9ml(p=0.27), in the urinary flow, the average flow rate was 6.07 ± 4.4ml/sec, 6.14 ± 3.74ml/sec (p=0.98), the maximum flow rate was 12.2 ± 6.0ml/sec, 10.8 ± 5.8ml/sec (p=0.69) respectively. The residual urine volume was 104.2 ± 72.6ml, 26.3 ± 48.3ml(p<0.05), and bladder compliance was 59.1 ± 52.0ml/ H₂O, 14.1 ± 11.6ml/H₂O (p<0.05), respectively, so there were significant differences between these two groups.

Interpretation of results

In both groups, a difference was absent in first desire to void, maximum desire to void, the urinary flow rate, but there were significant difference both residual urine volume and bladder compliance. As for bladder compliance of radiotherapy group having deteriorated, influence of cystatrophia by radiotherapy was thought about. In addition, it may have an influence on decrease of residual urine volume in radiotherapy group.

Concluding message

Uterine cervical cancer was investigated about influence of the radiotherapy for a lower urinary tract between only-surgery group and radiotherapy addition group, a significant difference was recognized in residual urine volume and bladder compliance.

References

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CLINICAL TRIAL REGISTRATION: This clinical trial has not yet been registered in a public clinical trials registry.

HUMAN SUBJECTS: This study did not need ethical approval because of a cohort study of a laboratory study but followed the Declaration of Helsinki. Informed consent was obtained from the patients.