

Awa Y¹, Yamanishi T², Yamaguchi C³, Ito T⁴, Yamamoto T⁴, Liu Z⁴, Uchiyama T⁴, Sakakibara R⁵, Naya Y¹, Suzuki H¹, Igarashi T¹, Ichikawa T¹

1. Department of Urology, Graduate School of Medicine, Chiba University, 2. Department of Urology, Dokkyo University, School of medicine, 3. Central Laboratory Unit, Chiba University, 4. Department of Neurology, Graduate School of Medicine, Chiba University, 5. Neurology, Internal Medicine, Sakura Medical Center, Toho University

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 33 female patients (49.3 ± 25.8 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 52.7 ± 9.8 years old, and radiotherapy addition group was 46.5 ± 9.4 years old (p=0.112). The mean volume of the first desire to void was 282.4 ± 128.3ml, 189.2 ± 111.5ml(p=0.07), and the volume of the maximum desire to void was 431.2 ± 149.3ml, 349.4 ± 180.0ml(p=0.26), in the urinary flow, the average flow rate was 6.13 ± 4.04ml/sec, 5.85 ± 2.86ml/sec (p=0.87), the maximum flow rate was 12.3 ± 5.5ml/sec, 9.1 ± 5.5ml/sec (p=0.26) 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.

Specify source of funding or grant	Nothing
Is this a clinical trial?	Yes
Is this study registered in a public clinical trials registry?	No
What were the subjects in the study?	HUMAN
Was this study approved by an ethics committee?	No
This study did not require ethics committee approval because	this is the cohort analysis based on a medical record.
Was the Declaration of Helsinki followed?	Yes
Was informed consent obtained from the patients?	No