

LOWER URINARY TRACT DYSFUNCTION AFTER RADICAL HYSTERECTOMY - THE IMPACT OF ADJUVANT RADIOTHERAPY -

Hypothesis / aims of study

In this study, we investigated the characteristics of lower urinary tract dysfunction, upper urinary tract deterioration and urinary tract infection after radical hysterectomy with or without adjuvant radiotherapy.

Study design, materials and methods

A total of 54 female patients who underwent radical hysterectomy with or without adjuvant radiotherapy were studied. Lower urinary tract symptoms, results of urodynamic studies, the presence of upper urinary tract deterioration and symptomatic urinary tract infection were investigated.

Results

In cystometry, first sensation, maximum cystmetric capacity and bladder compliance were significantly more reduced in radical hysterectomy and adjuvant radiotherapy than in radical hysterectomy alone. Low compliance bladder was more frequent in combined therapy than in the operation alone ($P < 0.01$). Detrusor overactivity was detected about 10% and had no significant difference in both groups.

UDS findings after RH with or without adjuvant radiotherapy			
parameter	with radiotherapy	without radiotherapy	p value
cystometry			
first sensation (ml)	202±107 (29)	298±138 (20)	0.010
Maximum cystmetric capacity (ml)	316±158 (32)	478±134 (22)	0.001
bladder compliance (ml/cmH ₂ O)	19±26 (31)	32±29 (17)	0.006
low compliance bladder	61% (19/31)	29% (6/21)	< 0.01
detrusor overactivity	13 % (4/31)	10% (2/21)	> 0.1

Data were shown as mean ± SD; number of patients or its ratio in parentheses;

Hydronephrosis and vesicoureteral reflux were significantly more detected in the combined therapy than in the operation alone. Most of hydronephrosis were detected after more than 5 years. Symptomatic urinary tract infection was tend to be more frequent in combined therapy.

Upper urinary tract deterioration after radical hysterectomy with or without adjuvant radiotherapy			
	with radiotherapy	without radiotherapy	p value
Hydronephrosis	57% (12/21)	21 % (4/19)	< 0.025
Vesicoureteral reflux	50 % (3/6)	0 % (0/6)	< 0.05

Symptomatic UTI after radical hysterectomy with or without adjuvant radiotherapy			
	with radiotherapy	without radiotherapy	p value
Symptomatic UTI in the past	50% (9/18)	21% (4/19)	< 0.1

number of patients or its ratio in parentheses; UTI, urinary tract infection;

Interpretation of results

Adjuvant radiotherapy after radical hysterectomy is associated with upper urinary tract deterioration and symptomatic urinary tract infection, and upper urinary tract deterioration is late-developing complication.

Concluding message

Because the complications after radical hysterectomy and adjuvant radiotherapy are late-developing, prolonged follow-up is essential.

Specify source of funding or grant	non
Is this a clinical trial?	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 study is retrospective.
Was the Declaration of Helsinki followed?	Yes

Was informed consent obtained from the patients?

No
