

Cisplatin

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=Abstract=

Comparison of the Clinical Outcomes Between Cisplatin- Chemoradiotherapy and Radiotherapy Alone in Patient with Cervical Cancer

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We compared the therapeutic effects of concomitant chemoradiotherapy (CRT) using cisplatin to single radiotherapy (RT) in uterine cervical cancer. 34 cases of non-operable uterine cervical cancer were reviewed retrospectively from Mar, 1993 to May, 1996 in St. Mary's Hospital. The patients were randomly selected to compare the effects of both methods. 22 patients were included in CRT group and 12 patients in RT group.

The results were as follows:

1. The decrease of tumor size was not significant (2.17 cm in CRT and 1.95 cm in RT) ($p=0.61$), but the number of responders of CRT group was larger than that of RT group significantly ($p < 0.05$).
2. The tumor markers showed no significant difference between CRT and RT groups ($p > 0.05$).
3. The overall survival rate showed no difference between two groups ($p > 0.05$).

The disease-free survivals for 38 months were 17.02% in CRT and 11.36% in RT, but it was not significant ($p > 0.05$).

In conclusion, concomitant chemoradiotherapy showed better rate of response, but size of tumor decrease and tumor markers showed no difference. CRT might improve the overall survival and disease-free survival, although it was not significant in this study.

The clinical significance of CRT remains to be determined in large randomized clinical trial.

Keywords: Chemoradiotherapy

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1B-2A , 57.95 , 1 가 1 , 2B , 2 가 12 , 3 가 8 , 4 가 1 . 4 38 . , 17.82 . , 4.61 cm , 4 cm 8 , 1 4 cm 14 . SCC 30% 82% 26.89 ng/ml , 86% 19 2.00 ng/ml ,2) 3 2 . CEA 5.8 ng/ml .3) , 59% 13 2.5 ng/ml (Table 1). 가 12 53 75 66.75 , 1 가 3 , 2 가 6 , 3 가 2 , 4 가 1 . 5 38 18.58 . 4.65 cm , 4 mitomycin 6) cisplatin cm 7 , 4 cm 5 . SCC가 17.70 ng/ml , 7) 2.0 ng/ml 9 (82%) CEA 4.71 ng/ml 2.5 ng/ml 9 (82%) (Table 1). 2. 1) cisplatin 가 protocol(3 , 1994) , 1 1. 1993 3 1996 5 38 가 mg/kg 50 mg cisplatin . 2) 5 6 28 34 , 5 180 cGy FIGO 2 5040 cGy 2B , 3) 1B-2A 12 (: radiotherapy group: RT) , 22 SCC CEA , CT MRI , : chemoradiotherapy group: CRT). 22 30 75 , CT MRI 3 6 1

Table 1. Patient Characteristics

		Cisplatin Chemoradiotherapy	Radiotherapy Alone
Age	Range	30 75	53 75
	Mean	57.95 ± 13.95	66.75 ± 7.83
Stage*	Total	22	12
		1	3
		12	5
		8	2
Tumor Size	Mean of total	4.61 ± 1.76	4.65 ± 2.01
	< 4 cm	8	7
	4 cm	14	5
SCCA	Mean of total	26.89 ± 48.16	17.70 ± 31.78
	< 2.0 ng/ml	3	3
	2.0 ng/ml	19	9
CEA	Mean of total	5.81 ± 7.56	4.71 ± 3.79
	< 2.5 ng/ml	9	3
	2.5 ng/ml	13	9
Follow-up**	Range	4 38 months	5 38 months
	Mean ± SD	17.82 ± 9.68	18.58 ± 13.00

Table 2. Response evaluation by changes in tumor size

Group	Chemoradiotherapy	Radiotherapy Alone
Size Change (Mean ± SD) (cm,)*	2.17 ± 1.21**	1.95 ± 1.14
Responders	19***	6
Complete	13	3
Partial	6	3
Non-responders	3	6

*: Decrease in tumor size between initial and follow-up

**: P > 0.05

***: P < 0.05

unpaired t-test
Kaplan-Meier

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50%

50%

가

CEA 2.0 ng/ml 2.5 ng/ml

SCC CEA

1

3 6

3 6

CT MRI SCC

CEA

50%

가

CT MRI

1. 1.95 cm , 2.17 cm 가 (p > 0.05, Table 2).

22

19 (86%) , 13 (59%) . 가 12 6 (50%) 3 (25%) (P < 0.05, Table 2).

2. 1) SCC SCC 10.65 ng/ml , 4.82 ng/ml (p > 0.05, Table 3).

Table 3. Response evaluation by changes in SCC level

Group	Chemoradiotherapy	Radiotherapy Alone
Level Change (Mean ± SD) (mg/ml)*	10.65 ± 32.78**	4.82 ± 7.31
Responders	18***	6
Complete	12	4
Partial	6	2
Non-responders	4	6

*: Decrease in SCCA level between initial and follow-up period

**: P > 0.05

***: P < 0.05

2) CEA

CEA 0.62 ng/ml 가 , 2.32 ng/ml (P > 0.05, Table

4). 22 6 (27%) 12 6 (50%) 가 (P > 0.05, Table 4).

Table 4. Response evaluation by changes in CEA level

Group	Chemoradiotherapy	Radiotherapy Alone
Level Change (Mean ± SD) (mg/ml)*	- 0.62 ± 5.31**	2.32 ± 1.14
Responders	6***	6
Complete	5	4
Partial	1	2
Non-responders	16	6

*: Decrease in CEA level between initial and follow-up

**: P > 0.05

***: P < 0.05

3. 81%(18/22) 가 9 (40.5%) , 가 4 (19%) . 50%(6/12) 2 (17%) 6 (50%) (p > 0.05, Table 5).

Table 5. Total response evaluation by changes in tumor size, SCC and CEA level

Group	Chemoradiotherapy	Radiotherapy Alone
Responders	18*	6
Complete	9	2
Partial	9	4
Non-responders	4	6

*: P > 0.05

4. 68.45% , 66.67%

($p > 0.05$, Table 6, Fig. 1).

17.02%

11.36%

($p > 0.05$, Table 6,

Fig. 2).

Table 6. Survival and disease-free survival rate

Survival Rate	
Total	65.36%
Chemoradiotherapy	68.45%*
Radiotherapy Alone	66.67%
*: Not significant	
Disease-Free Survival Rate	
Total	14.86%
Chemoradiotherapy	17.02%*
Radiotherapy Alone	11.36%

*: Not significant

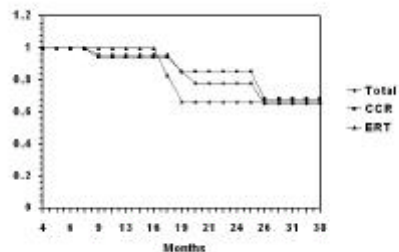


Fig. 1. Survival rates.

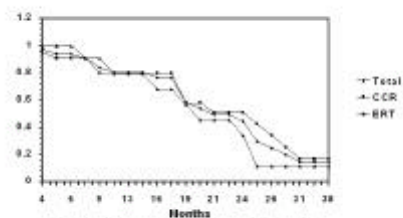


Fig. 2. Disease-free survival rates.

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cisplatin, 5-fluorouracil

mitomycin-c

가

가

cisplatin

가

, hydroxyurea

.81(11).

cisplatin

phase ,

,12-14 cisplatin

가

.915,16)

cisplatin

phase

,17)

Robert 18)

30 cisplatin

25

13

39

20

,

42

가

가

가

Robert 18)

39

12

5 28

4

가

15)

(Fig. 2).

Stage IB

27

78%

- Cisplatin -

Robert 18) stage 88% , 1993 3 1996 5 38
6 cm 가 stage 76% stage IB 가
3
60% 57% Thomas 19) 가 12 22
. Thomas 19) stage IB , SCC
stage CEA , CT MRI
IB 가
1.
Robert 18) stage (가 50%
90%)가 6/12 (50%)
79% , stage 19/22 (86%)
68% (p < 0.05).
50% 3
2.
68.45% 가
66.67% (p > 0.05).
3. 38
가 66.67%
Wang 20) , 68.45%
hemoglobin 8 mg/ml ,
39 7 12 3
. Robert 18) (p > 0.05).
38% 4.
, 가 11.36% ,
.9 17.02%
42 21
.16) (p > 0.05).
hemoglobin 10 mg/dl
가 50%(11/22) 가
, 1
(). concomitant chemoradiotherapy)
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