
_____ :					
_____ :	1993	2008			
		42			
	61.5 (39/89)	50.4 Gy (30.0/64.0 Gy)	T	2	
	36 (85.7%)	14 (33.3%)			5-fluorouracil,
mitomycin	36 (85.7%)				5-fluorouracil, cisplatin
_____ :		62 (2/202)		5	
		86.0%, 71.7%, 71.7%, 78.2%			
Eastern Cooperative Oncology Group (ECOG)					ECOG
	7	1			3
	4 (9.5%), 2	22 (52.4%)			
_____ :					
	ECOG	1			

핵심용어:

47

2

2007

0.1%

89

1)

1974 Nigro 23

이 논문은 2010년 11월 2일 접수하여 2010년 12월 6일 채택되었음.
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3.

1. 1989 2008

70 10

9 3

2 2

2 28 42

1993 1

2008 8

61.5 (39/89) 32 (76.2%) 10 (23.8%)

Eastern Cooperative Oncology Group (ECOG)

2 35 (83.3%)

1 American Joint Committee on Cancer, 7th

Tis, T1, T2, T3, T4

2 (4.8%), 9 (21.4%), 25 (59.5%), 2 (4.8%), 4 (9.5%)

N0, N1, N2, N3 28 (66.7%),

7 (16.7%), 5 (11.9%), 2 (4.8%) 0

I, II, IIIA, IIIB 1 (2.4%), 7 (16.7%),

17 (40.5%), 9 (21.4%), 8 (19.0%)

5 (11.9%)

2. (95.2%) 2 1

40

1

36

(85.7%) 5-fluorouracil+mitomycin (FM), 4 (9.5%)

5-fluorouracil+cisplatinium (FP) 4

(FP)

6 MV 10 MV

3 4

2D 3D

50.4 Gy (30.0-64.0 Gy),

3 52.0

Gy (43.2-72.0 Gy), 4

42.3 Gy (37.8-45.0 Gy)

(CT)

2 3 5 1 5 6

CT

CT

WHO

CT

50%

Kaplan-Meier

log-rank

Table 1. Prognostic Factors with Regard to Overall Survival

Variables	5-yr overall survival (%)	Univariate (p-value)	Multivariate (p-value) (hazard ratio, 95% CI*)
Sex (male vs. female)	82.4 vs. 100	0.231	
Age (<65 yr vs. >65 yr)	90.7 vs. 79.4	0.336	
ECOG [†] performance (<1 vs. >1)	94.3 vs. 51.4	0.007	0.024 (7.882, 1.315-47.246)
Clinical T classification (<2 vs. >2)	83.5 vs. 100	0.337	
Clinical N classification (0 vs. 1-3)	88.0 vs. 82.5	0.690	
Overall stage (<2 vs. >2)	86.2 vs. 86.3	0.976	
Primary RT [‡] dose (<50.4 Gy vs. 50.4 Gy)	87.7 vs. 84.4	0.697	
RT break (<14 days vs. 14 days)	85.6 vs. 88.9	0.998	
Concurrent chemotherapy (FM [§] vs. non-FM)	87.7 vs. 66.7	0.612	
Complete remission (CR vs. non-CR)	90.3 vs. 60.0	0.047	

*confidence interval, [†] Eastern Cooperative Oncology Group, [‡] radiotherapy, [§]5-fluorouracil+mitomycin, complete remission.

Cox

forward stepwise conditional logistic regression

62 (202)
 13 (31.0%)
 23 (54.8%)
 37 (88.1%)
 5 (11.9%)
 202
 60
 60
 5
 86.0%, 71.7%, 71.7%, 78.2%
 5
 0+I, II, IIIA, IIIB 100%, 80.2%, 100%, 70.0%
 (p=0.403). ECOG 0-1 2 5
 94.3%, 51.4% (p=0.007) (Table 1, Fig. 1).
 5 90.3%, 60.0%
 (p=0.047) (Table 1, Fig. 2).
 7
 (16.7%) 2 (4.7%),
 4 (9.5%), 1
 (2.4%) 4
 (9.5%) 3
 , 1

5
 4
 4
 2
 (65 vs. 65), ECOG (1 vs. 1), T (2 vs. 2), N (0 vs. 1 3), (2 vs. 2), (FM vs. non-FM), (50.4 Gy vs. 50.4 Gy), (2 vs. 2), (vs.) 10
 ECOG (p=0.024; HR=7.882; 95% confidence interval [CI], 1.315-47.246).

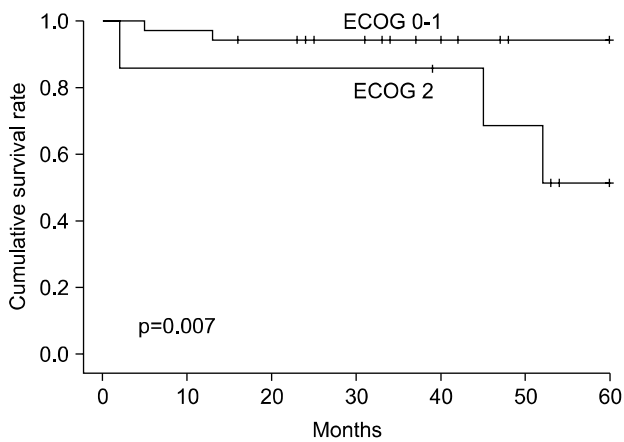


Fig. 1. Overall survival curve according to performance status.

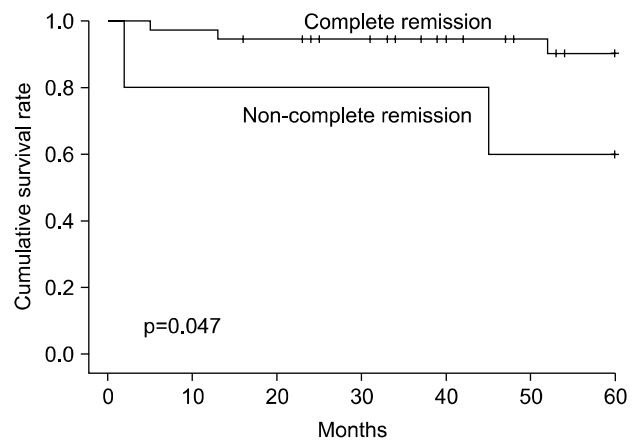


Fig. 2. Overall survival curve according to treatment response.

138

FP 3

202

5

71.3%, 67.5%, 91%

16

10 1974 Nigro 23 5-FU, mitomycin

, RTOG 98-11

FP

FM

14

ACCORD 03

FP

58911)

FP

17

90.5%

75 92%

8911)

5

9,1218)

Deniaud-Alexandre 19

86.0%, 71.7%, 71.7%, 78.2%

89)

Schwarz 20

PET/CT

2

5-FU mitomycin EORTC UKCCCR

5-FU, mitomycin

8,9) RTOG 87-04

5-FU 5-FU, mitomycin

ECOG

Martenson 21)

12)

5

mitomycin

74%

55%

13)

(p=0.045).

Chie 22)

RTOG

98-11¹⁴⁾

FM

FP

5

2

13

FM 60%, FP 54%

(p=0.17), 3

FM 61%

Konski 23) RTOG 92-08

FP 42%

(p 0.001),

RTOG 87-04

FP FM

(19% vs. 10%,

2

p=0.02).

FM

cisplatin mitomycin

2

cisplatin,

mitomycin FM

(48.6% vs. 79.5%,

4

p=0.005)

(91.9% vs. 79.5%) 3

7

15)

2

35

4

. Doci ²⁴⁾ FM

56

36 Gy

200

60

60

5

, ECOG

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Abstract

The Results of Curative Concurrent Chemoradiotherapy for Anal Carcinoma

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Purpose: To evaluate the predictive factors for treatment response and prognostic factors affecting survival outcomes after concurrent chemoradiotherapy (CCRT) for patients with anal squamous cell carcinoma.

Materials and Methods: Medical records of forty two patients with histologically confirmed analsquamous cell carcinoma, who had complete CCRT between 1993 and 2008, were reviewed retrospectively. Median age was 61.5 years (39-89 years), and median radiotherapy (RT) dose was 50.4 Gy (30.0-64.0 Gy). A total of 36 patients had equal to or less than T2 stage (85.7%). Fourteen patients (33.3%) showed regional nodal metastasis, 36 patients (85.7%) were treated with 5-fluorouracil (5-FU) plus mitomycin, and the remaining patients were treated by 5-FU plus cisplatin.

Results: The median follow-up time was 62 months (2-202 months). The 5-year overall survival, locoregional relapse-free survival, disease-free survival, and colostomy-free survival rates were 86.0%, 71.7%, 71.7%, 78.2%, respectively. Regarding overall survival, the Eastern Cooperative Oncology Group (ECOG) performance status and complete response were found to be significant prognostic factors on univariate analysis. For multivariate analysis, only the ECOG performance status was significant. No significant factor was found for locoregional relapse-free survival or disease-free survival and similarly for treatment response, no significant factor was determined on logistic regression analysis. There were 7 patients who had local or regional recurrences and one patient with distant metastasis. The only evaluable toxicity in all patients was radiation dermatitis of perianal skin (grade 3), which developed in 4 patients (9.5%) and grade 2 in 22 patients (52.4%).

Conclusion: This study revealed that patients with a performance score of ECOG 0-1 survived significantly longer than those with a poorer score. Finally, there was no significant predicting factors tested for treatment response.

Key Words: Anus neoplasms, Chemoradiotherapy, Prognostic factor