



손경민 · 서영일 · 김인제 · 배영덕 · 정영옥 · 차명진 · 김현아

= Abstract =

### Adherence to Uric Acid Lowering Agent of Gouty Patients

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**Objective:** Gout is crystal-induced arthritis with hyperuricemia. Uric acid lowering agent (UALA) is the maintenance drug of its treatment. Drug adherence is an important factor that influences treatment outcome. The purpose this study was to examine the drug adherence to UALA of 303 gouty patients and to analyze the factors associated with compliance.

**Methods:** We retrospectively assessed adherence to UALA in 303 patients who visited three hospitals affiliated with Hallym University. Patients were diagnosed as gout and used UALA with at least 6 month follow-up. Two adherence measures were calculated, the percentage of days covered (PDC) and the time until an extended break (at least 60 days) in treatment. A PDC <70% was considered poor adherence and factors associated with poor adherence were examined.

**Results:** Among the 303 patients, 283 (93.4%) were male. Mean age was 55.4±13.7 years. Comorbidities included hypertension in 117 (38.6%), diabetic mellitus in 108 (35.6%), angina in 107 (35.3%), myocardial infarction in 108 (35.6%), and heart failure in 113 (37.3%). The mean PDC was 65.8% with 63.4% of patients considered poorly compliant over the study period. Mean treatment duration before an extended break occurred was 203.5 days. Factors associated with good adherence included hypertension and prescription from rheumatologist.

**Conclusion:** In our study, adherence to UALA in gouty patient was poor. Understanding the

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**Key Words:** Gout, Uric acid, Adherence

**서론**

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2), (

, , ),

, allopurinol

(xanthine oxidase inhibitor)

allopurinol

60

Allopurinol 70%

Kaplan-Meier survival plots

1 60

allopurinol . SPSS

$\pm$

Chi-square test,

Student's t-test . p<0.05

## 대상 및 방법

## 1. 연구 대상

1999	2009	3
allopurinol		303
	ACR	283 (93.4%)
		55.4 (26~92 )
		44.4 (6.4~118.8 )
	allopurinol	117 (38.6%)
6		
		206 (68%)
		1
2		34.6±
		39.3
		17.9±15.7

## 2. 연구 방법

394	91	6	of day covered (PDC)	65%	, 70%
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111 (36.6%) . , , , ,  
60  
203.5 ( 2). ( 3).  
Allopurinol 219  
(72.3%), 20 (6.6%), 28 (9.2%), (adjusted odds ratio 2.98,  
13 (4.3%), 4 (1.3%), 95% 1.59~5.60, p=0.001)  
8 (2.6%), 7 (2.3%) . (adjusted odds ratio 2.25, 95% 1.02~4.98,  
PDC 70% p=0.045) ,  
(adjusted odds ratio 0.29, 95% 0.13~0.66, p=0.003)  
20~39 , 40~59 . , ,  
, 60 ,  
(p=0.56). ( 4).  
Kaplan-Meier survival plots  
1 60

**Table 1.** Baseline characteristics of patients

Male (N, %)	283 (93.4)
Age (year)	55.4±13.7
Comorbidity (N, %)	
Hypertension	117 (38.6)
Diabetic mellitus	108 (35.6)
Angina	107 (35.3)
Myocardial infarction	108 (35.6)
Heart failure	113 (37.3)
Diagnosed as gout previously (N, %)	206 (68.0)
Number of concomitant medication	5.8±3.1

Data are expressed as mean±SD unless specified otherwise

**Table 2.** Characteristics related to gout treatment

Number of physician visits, any cause	34.6±39.3
Number of physician visits, gout	17.9±15.7
Starting dosage of allopurinol (mg)	144.2±64.3
Pre-treatment uric acid level (mg/dL)	8.6±2.2
Post-treatment uric acid level (mg/dL)	7.0±2.0
Mean percentage of days covered (PDC)	65
PDC >70% (N, %)	111 (36.6)
Time until a break >60 days in allopurinol (days)	203.5±132.4

Data are expressed as mean±SD unless specified otherwise

**Table 3.** Factors associated with good compliance

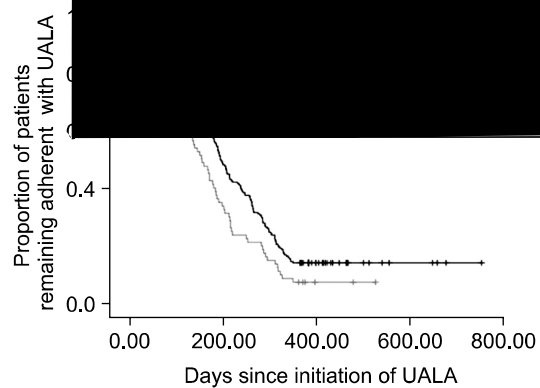
	Good compliance (N=111)	Poor compliance (N=192)	p-value
Male	101 (91.0)	182 (94.8)	0.199
Age			0.560
20~39	45 (40.5)	70 (36.5)	
40~59	45 (40.5)	90 (46.9)	
>60	21 (18.9)	32 (16.7)	
Hypertension	51 (47.7)	66 (34.7)	0.029*
Diabetic Mellitus	22 (20.8)	86 (45.7)	<0.001*
Angina	17 (17.9)	90 (50.8)	<0.001*
Myocardial infarction	17 (18.3)	91 (51.7)	<0.001*
Heart failure	23 (24.2)	90 (51.1)	<0.001*
Diagnosed as gout previously	64 (62.7)	142 (78.0)	0.006*
Prescription from rheumatologist	94 (86.2)	125 (65.8)	<0.001*

By Chi-square test, \*p-value: statistically significant p-value

Table 4

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Variable  
myocar  
male ge  
as gout



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(7).  
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(8).  
6 mg/dL uric acid lowering agent (UALA)  
4,166  
(uricosuric agent) 70% 2  
allopurinol oxypurinol 75% 4  
(xanthine)  
UALA  
probenecid, sulfinpyrazone, benzbromarone 1  
allopurinol  
Allopurinol UALA  
(9).  
， allopurinol  
allopurinol  
， Riedel 303  
9,482 PDC 70%  
80% 119 (38.3%) ， PDC 65%  
18% 1 60  
271 (87.1%)  
(1). 9,823  
Solomon  
80%  
African-American, allopurinol  
72%  
(2). Leslie ， 20~39 ， 40~59 ， 60  
NSAID Solomon ， Leslie  
(3).  
65~74 ， 75~84 ， 85  
45 45~49 75  
(4-6). (2,3).

PDC

allopurinol

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## 결론

allopurinol

6.44 mg/dL

6 mg/dL

(6.44 mg/dL vs 7.52 mg/dL,  $p < 0.001$ ).

1 60

Solomon

(2).