

Stool White-cell Count as a Predictor of Long-term Admission in Healthy Patients with Acute Diarrhea

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Purpose: This study was designed to investigate the predictors of long-term admission in patients with acute diarrhea at an early stage of their emergency department (ED) visit.

Methods: We retrospectively analyzed clinical data of 125 patients who visited our ED with complaints of acute diarrhea and abdominal pain and underwent a stool test during one year (Jan. to Dec. 2001). We excluded patients who were transferred out or were self-discharged and those with another illness. We checked the numbers of cases of diarrhea, the presence of fever and abdominal pain, the stool cell counts, the blood cell counts, platelets, blood urea nitrogen, and creatinine on admission. We also counted the length of stay and defined a stay of over 4 days in the hospital as a long-term admission. We tried to find parameters that could predict long-term admission at an early stage.

Results: A total of 125 patients were enrolled (men : 56 ; women : 69), and their mean age was 44±0.25 years. The mean length of stay was 3.0±0.02 days. The length of stay had a statistically significant correlation with the stool WBC ($p < 0.01$, $R = 0.361$). Only the stool WBC a the discriminative variable for long-term admission ($p < 0.01$).

Conclusion: The stool WBC was a statistically significant predictive variable to determinate the long-term admission and the severity of acute diarrhea, and we think it could be

used to make an early decision for the close medical attention.

Key Words: Stool, WBC, Admission

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Abstract

목적 : 본 연구는 급성 설사 환자에서 조기 응급실 방문 시 장기간 입원(4일 이상)을 예측하는 요인을 조사하여 조기 의료적 처치를 결정하는데 도움을 주기를 목적으로 하였다.

방법 : 2001년 1월부터 12월까지 응급실로 내원한 급성 설사 환자 125명을 대상으로 후향적으로 분석하였다. 배설물 검사, 발열, 복통, 혈구 검사, 혈소판, 혈중 요소질소, 크레아티닌을 검사하였고, 입원 기간을 조사하였다. 입원 기간이 4일 이상인 경우를 장기간 입원으로 정의하였다. 장기간 입원과 관련된 요인을 분석하였다.

결과 : 총 125명 환자가 등록되었다(남자 : 56명, 여자 : 69명)이며, 평균 연령은 44±0.25세였다. 평균 입원 기간은 3.0±0.02일이었다. 입원 기간은 배설물 WBC 수와 통계적으로 유의한 상관관계가 있었다($p < 0.01$, $R = 0.361$). 배설물 WBC 수만이 장기간 입원의 판별 변수로 판명되었다($p < 0.01$).

결론 : 배설물 WBC 수는 장기간 입원과 급성 설사의 심각도를 판별하는 통계적으로 유의한 예측 변수이며, 우리는 이것이 조기 의료적 처치를 결정하는데 도움을 줄 수 있다고 생각한다.

키워드 : 배설물, WBC, 입원

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640

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 : 2002 7 10 , : 2002 11 12

가 가

38

가

가

가가

ciprofloxacin

가 ,

가

t-test

(ANOVA) Tukey

. p 0.05



2001 1 12

6

가 125

가 가

가 , (

) 가 ,

2 , 3

6)

,

6 37.6

BUN, Cr

Wright

4) /

Shigella Salmonaella , TIBS

(thiosulfate citrate bile sucrose)

Cholerae Vibrio Parahaemolyticus

wet smear

가 가 Campylobacter,

Yersina, Giardia lamblia

4

1. 44±0.25 (4

92) 20 92.0%

56 (44.8%) 69 (55.2%)

가 20 가 8%

2. 2.0±0.02

(0 ~ 7) 3.0±0.02 (1-

12) 4 20.4%

3. 30 (24.0%)

(positive predictive value),

(negative predictive value) 37.1, 92.7%

36.1, 87.5%

43.1, 89.2%

(1).

4. Salmonella

(, p<0.05).

5. 가 4

(, p<0.05).

6. 2.19±1.17, 4.05±2.52 (t-test, p<0.01).

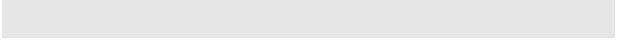
7. 가 , 1 50

, 50 2.19±

1.17, 2.87±2.03, 4.43±2.89

(, p<0.01).

가
 가
 가
 가
 가 50
 가
 가
 fecal lactoferrin
 가
^{12,13} Huicho ¹⁴ fecal lactoferrin
 가 100% 가
 Beltinger ¹⁵
 peroxidase activity
 guaiac test (colo-
 immune test, Roche)
 가
 , guaiac
 가



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