

유전자재조합 인형 과립구집락촉진인자(rhG-CSF)에 의한 Ticlopidine유도 호중구 감소증 치험 1예

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= Abstract =

A Case of Ticlopidine-induced Neutropenia Treated with rhG-CSF

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There are many conditions which are associated with neutropenia, such as infections, chemical and physical agents, and hematopoietic diseases. But ticlopidine-induced neutropenia is rarely reported in Korea. We experienced a case of neutropenia which developed after approximately 1 month of ticlopidine administration to a stable angina pectoris patient.

A 59 year-old woman with stable angina pectoris was placed on ticlopidine. Forty days later, she was admitted for high fevers and shaking chills. On admission, leukocyte count was $900/\text{mm}^3$ (neutrophil $0/\text{mm}^3$), hemoglobin was 11.8g/dl, and platelet count was $440,000/\text{mm}^3$. After confirming ticlopidine-induced neutropenia by bone marrow aspiration and biopsy, we administered rhG-CSF (neutrogen, Choongwae, Co. Korea) at a dose of 3-5 $\mu\text{g}/\text{kg}$ daily. On the 25th day of treatment, leukocyte count reached $2,890/\text{mm}^3$. She experienced no adverse effects of rhG-CSF treatment and recovered completely.

We assume that the rapid recovery of granulocytes was attributable to rhG-CSF, and we suggest that rhG-CSF should be tried in a patients with ticlopidine-induced neutropenia with depletion of myeloid precursors in the hypocellular bone marrow.

KEY WORDS : Ticlopidine · Neutropenia · rhG-CSF.

서 론

1).
10 30%

가 $1,500/\text{mm}^3$

2,3,4,5)

ticlopidine

가 가

ticlopidine
 0.85%
 6,7,8) ticlopidine
 (rhG-CSF : recombinant human granulocyte colony stimulating factor)
 가 가 9)
 ticlopidine
 rhG-CSF
 1
 증 례

: , , 59
 :
 : 5
 1

felodipine(splendil) 5mg, isosobide - 5 - mononitrate(Ismo) 60mg, ticlopidine(ticlid) 500mg
 40

: 4
 가 :
 : 150/100mmHg
 , 100 , 38.4
 4
 × 4cm
 Grade /

11.8g/dl, 34.0%, 900/mm³
 (0/mm³), 440,000/mm³,
 177mg/dl, BUN 4.6mg/dl,

0.9mg/dl, 5.9g/dl, 2.7g/dl, AST
 90 IU/L, ALT 82 IU/L, 0.5mg/dl, alkaline phosphatase 260 IU/L, LDH 205 IU/dl
 X
 ANA 1 : 40 , Anti - DNA 1 : 10
 HBs

(Fig. 1),
 (Fig. 2).

: ticlopidine
 ticlopidine

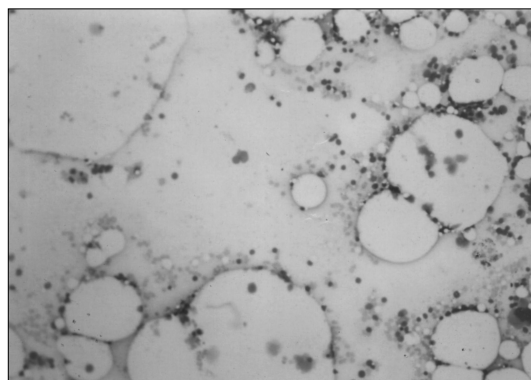


Fig. 1. Bone marrow aspiration smear showing severely decreased cellularity with increased megakaryocytic series(Wright-Giemsa stain, × 100).

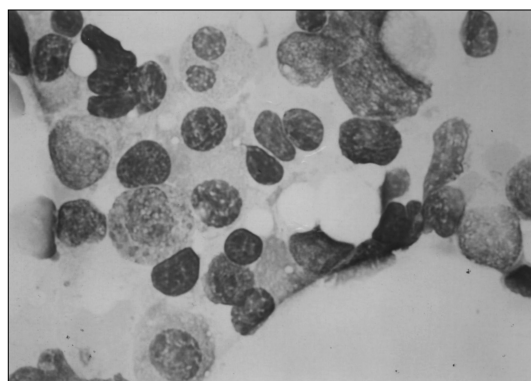


Fig. 2. Bone marrow aspiration smear showing no myeloid cells(Wright-Giemsa stain, × 1000).

Table 1. Peripheral blood finding

HD(days)	- 42	1	4	14	22	24	25	27
Hb(g/dl)	13.8	11.8	9.2	9	8.5	7.2	6.9	12.2
Hct(%)	41.2	34	30.4	30.4	23.2	19.6	29	36.5
WBC(mm ³)	6900	900	510	310	600	1100	2890	8430
Band(%)	-	0	0	0	0	0	2	6
Seg(%)	-	0	0	0	0	24	47	56
Lym(%)	-	90	92	81	92	50	32	17
Mono(%)	-	10	4	0	0	14	13	17
Eosin(%)	-	0	4	0	0	7	4	1
Baso(%)	-	0	0	9	8	5	2	3
PLT(× 10 ³ /mm ³)		440	531	519	223	328	353	340

HD : hospital day

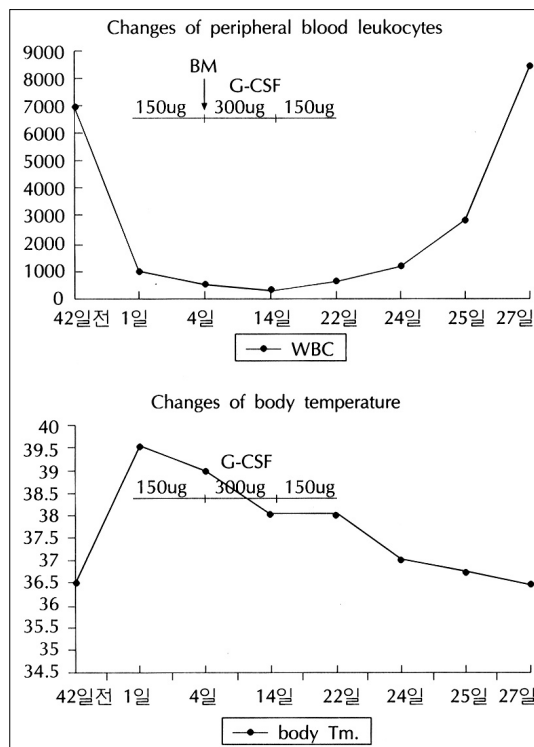


Fig. 3. Changes of peripheral leukocyte and body temperature after rhG-CSF treatment(BM ; bone marrow aspiration and biopsy).

rhG - CSF(neutrogin)
 150 µg, 5 6 15 rhG - CSF 300 µg, 16 22 rhG - CSF 150 µg 23
 1,100/mm³(24/mm³)

, rhG - CSF
 (Table 1, Fig. 3).

고 안

Ticlopidine aspirin, dipyridamole, sulfipyra - zone
 adenosine diphosphate
 aspirin prostacyclin -
 thromboxane pathway 10). Ti -
 clopidine
 가
 , ticlopidine 1989
 , 525 ticlopidine 11
 ,
 450/mm³ . Hass 8) aspirin
 ticlopidine 1527 aspirin
 12 1518
 ticlopidine 22 , ticlopidine
 13
 가 450/mm³
 ticlopidine
 2.4% , 2 3
 가 450/mm³

0.85% , rhG - CSF
 ticlopidine 3
 2 , 가
 .
 Debra ¹¹⁾ Ono
 12) ticlopidine 가
 Ticlopidine
 Gardner¹³⁾ 가 가
 2 , Quaglino ¹⁴⁾ ticlopidine
 가
 ticlopidine ticlopidine
 가 ,
 가 1
 , 2 가
 15) ,
 가 , rhG - CSF가
 가 ,
 가
 (colony stimulating factor) 가 가 ticlopidine
 rhG - CSF가 rhG - CSF
 Guillermo ⁹⁾ 가 ticlopidine
 3 G - CSF 480 μg
 2 3 , 1
 10 가 2.000/mm³
 가
 가
 5% rhG - CSF(()) 3 5 μg/kg
 .
 ticlopidine 2
 , rhG -
 CSF 22

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