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= Abstract =

Delayed Hemolytic Transfusion Reaction in Treatment of Multiple Fracture - Case Report -

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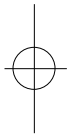
This is a case report of delayed hemolytic transfusion reaction due to Anti-Le*b and Anti-Jk*b in treatment of multiple fracture. The patient was a 14 year-old boy and had no history of transfusion or blood products. The patient underwent open reduction and internal fixation for fracture of supracondyle of femur with massive blood transfusion. Abnormal finding of ABO incompatibility was not found as usual method. The patient developed a marked fall in hemoglobin and hematocrit value and a marked hyperbilirubinemia at 8 day after surgery, which suggested hemolytic anemia and jaundice. After the evaluation of this hemolytic anemia and jaundice, we found the Anti-Le*b antibody and Anti-Jk*b antibody.

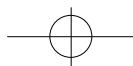
A delayed hemolytic transfusion reaction represents an infrequent, but potentially hazardous complication of blood transfusion. The phenomenon usually originates from exposure to a blood

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group antigen by prior transfusion or pregnancy. Delayed appearance of isoantibodies, first detected 4 to 14 days after the transfusion of apparently compatible blood, has been detected by the authors.

Key Words : Multiple fracture, Anti-Le*b and Anti-Jk*b, Delayed hemolytic transfusion reaction.

Le*b -Jk*b

1

가

ABO

가

가

14

가

(Fig 1-A, B).

28.5%

AST/ALT 185/77 U/L

+3

8

가

(Fig 2-A, B).

14

1

가

3

9.0 g/dl,

-Di*a, - 26.5%

2

Le*a, -Jk*b, -E

2,3)

13

38.0

22

8.8 g/dl,

25.6%

+3

AST/ALT 141/46 U/L,

RBC

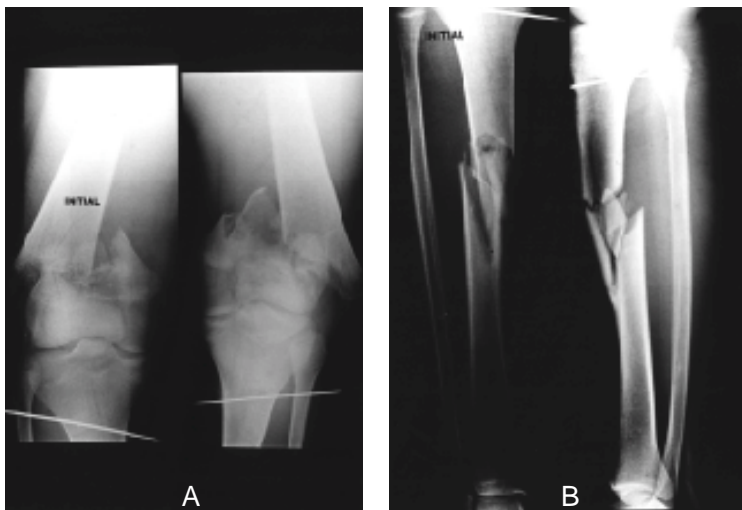
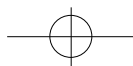


Fig 1-A. Preoperative radiographs showing fractures of the both distal femurs.

B. Preoperative radiographs showing a comminuted fracture of the right tibia shaft.

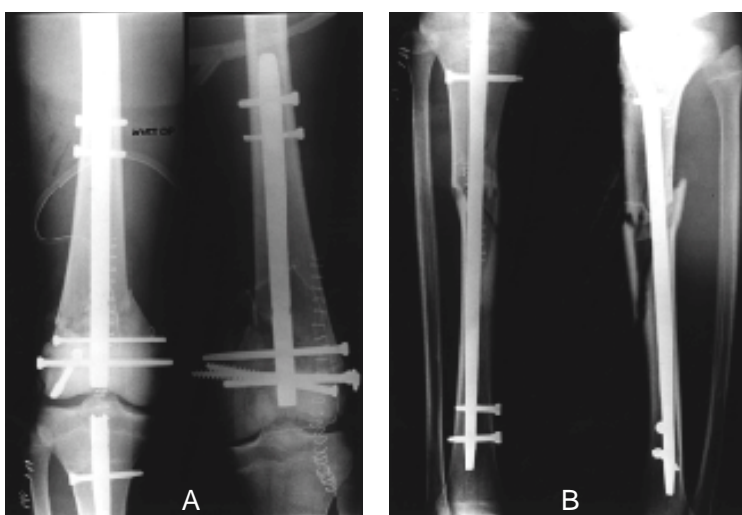
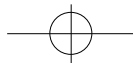


Fig 2-A. Postoperative radiographs of fractures of the both distal femurs.

B. Postoperative radiographs of fracture of the right tibia shaft.

BUN/Cr	18.9/0.6 mg/dl	.	23	.	26
				7.9 g/dl,	
2	. 2	38.5	22.1%	.	, RBC +3
		25	.	AST/ALT	460/171 U/L, BUN/Cr
	7.8 g/dl		17.6/0.7 mg/dl,	3.7 mg/dl	가 ,
,	21.6%	.		1.5 mg/dl	가 .
, RBC +3	.	AST/ALT	5.8 mg/dl	.	
313/111 U/L, BUN/Cr	16.5/0.7 mg/dl,				
2.8 mg/dl	가 (Table 1).				
2	. 2	38.5	Le*b	-Jk*b	가 .
					27



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Table 1. Laboratory finding

Postop. day	Hb (gm/dl)	Hct (%)	Fever (°C)	T.Bil. (mg/dl)	ALT (IU/L)	AST (IU/L)	BUN/Cr (mg/dl)	Packed cell Transfusion
Preop.	9.6	28.5	37.2	0.4	68	46	7.1/0.8	
Intraop.								14 packs
3	9.0	26.5	36.6					2 packs
20	10.3	31.3	37.0	1.4	102	36	18.9/0.6	
22	8.8	25.6	37.0	1.8	141	46	16.9/0.7	
23			38.5					2 packs
25	7.8	21.6	38.5	2.8	313	111	16.9/0.7	2 packs
26	7.9	22.1	38.0	3.7	460	170	17.6/0.7	
30			36.5	1.5	189	174	9.5/0.6	
40	10.0	30.3	36.6	0.3	25	36	4.7/0.6	

, -Jk*a

가

14.0 g/dl,

41.7%, AST/ALT 25/19 U/L, BUN/Cr 6.0/0.6

가가

가

mg/dl,

0.2 mg/dl

가

-Jk*b

-Le*b

가

가

가

가

가

3-13

, 2/3

가

가,

가

가

가

가

2,3).

5-7

가

MNS

Rhesus

, Kidd

, Duffy

, Kell

7,9,10).

,

, 10

2,3,10).

Lewis

, Diego

, U

3),

가

가

10%

4

14

가

7,8,9,10),

-Fy*a

-Jk*a,

-Jk*b,

-E,

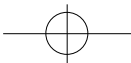
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-c,

-Kell,

6).

72



3).

14 3
2 가 , , ,
,

22 8.8g/dl 2 가 가
25.6% 가

7.8 g/dl 21.6% 7).
가 . AST/ALT가 460/170
U/L 가 , 2.8 mg/dl 3
가 . 14 13

2 , 3 ,
가 , AST/ALT 가 가
22 , .

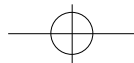
2 ,

-Jk*b -Le*b ,
가 . 1
가 . ,
가 . ,
2,3) , 72

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