



14, 3, 2001 7

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Repofix

. . . .

< >

: Repofix
가
: 1995 10 1999 6 Repofix
24
가
: 12.3
11.5 PTB cast
Gustilo-Anderson 21.7 , 36 , 39
22 , 32 가
($p<0.05$).
9 , 가 1 , 3 , 1 가 ,
: Repofix 가
: , , Repofix

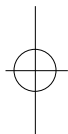
,
Ilizarov 가
가
Ilizarov

, , 가

:

193-5

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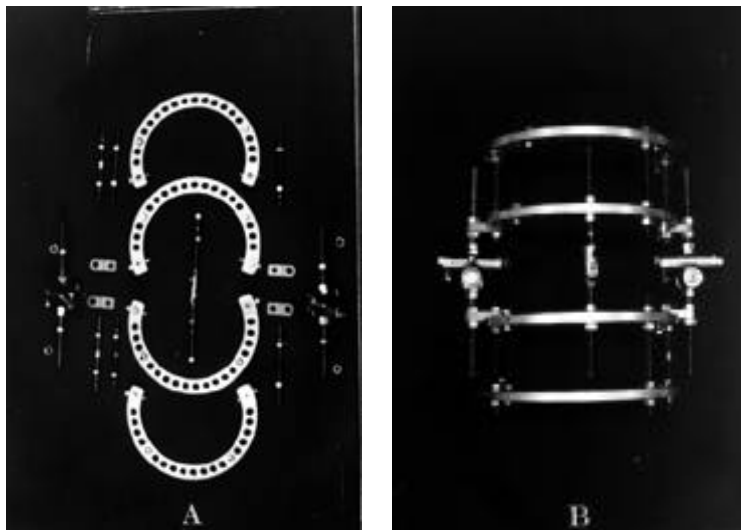
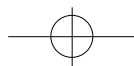


Fig 1. A: Four ring, two reposition device and two side distractor.
B: Assembled form of Repofix apparatus

Volkov Oganessian

Reposition fixation apparatus (Repofix)

1995 10 1999 6 Repofix
27, 28 3 24

1 Gustilo-Anderson
9, 7, a 5, b 3
Repofix Ilizarov ring ring
reposition device가
(Fig.1). ring bow가
bow connecting bar frame
, frame side distractor,
frontal-dorsal distractor가 side distractor
guide가
1995 10 1999 6 Repofix guide screw distractor가
, 가가 (Fig 2).

1 가가 24 Gustilo-Anderson

17.1 (13 42)
24 15 (62%), 9 (38%) 가
47.5 (32 71) 가
가 17 가
가 9 , bow가 bow 2
가 6 , 가 2 , pin bow 가
7 . pin 가
4 , 가 Repofix reposition device

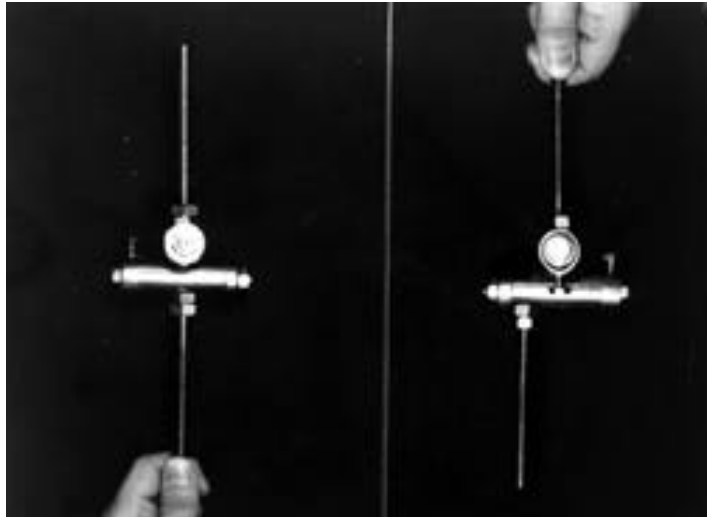


Fig 2. The side distractor has guides which arranged with right angle.

Table 1. Complications and management

Type	No. of case (%)	Management
Pin site infection	9 (38)	Antibiotics tx.
Delayed union	3 (13)	Plate & bone graft (1) IM nailing (2)
Nonunion	1 (4)	IM nailing & bone graft
Focal skin necrosis	1 (4)	Split thickness skin graft

($p < 0.005$).

9 (37.5%)

가

가1

Repofix

PTB cast

3 (12.5%)

Kruskal Wallis test

1

2

1 (4.2%)

2

12.3

11.5 PTB cast

Gustilo-Anderson

(Table 1).

21.7 , 36 , 39

23 , 32

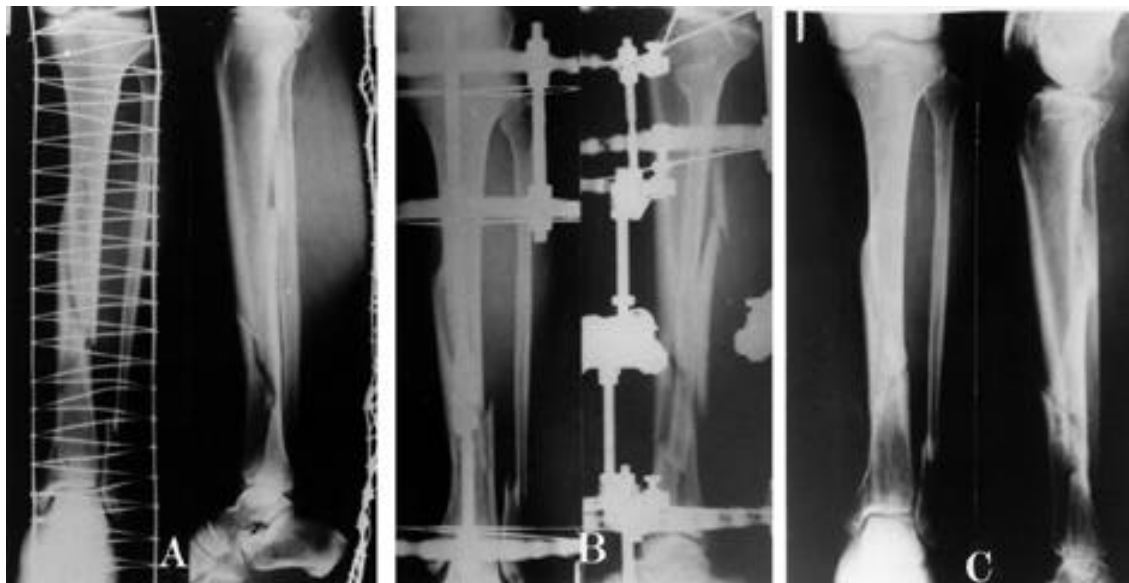


Fig 2. Case 1. A: Fifty-three year-old man had the open type fracture. B: AP and lat. view after application of the Repofix external fixator. C: Satisfactory bony union after 14 months later from injury.

가 가
, 가 3,12)
가 Ilizarov
14,9)
Ilizarov
가 가 3
가 가
가 25%가
가 2,3,11,13)
Ilizarov 가
가 ring
가
가 Repofix apparatus Volkov

1.
53
1
14
(Fig. 3).
2.
60
3 B
K
25
(Fig. 4).

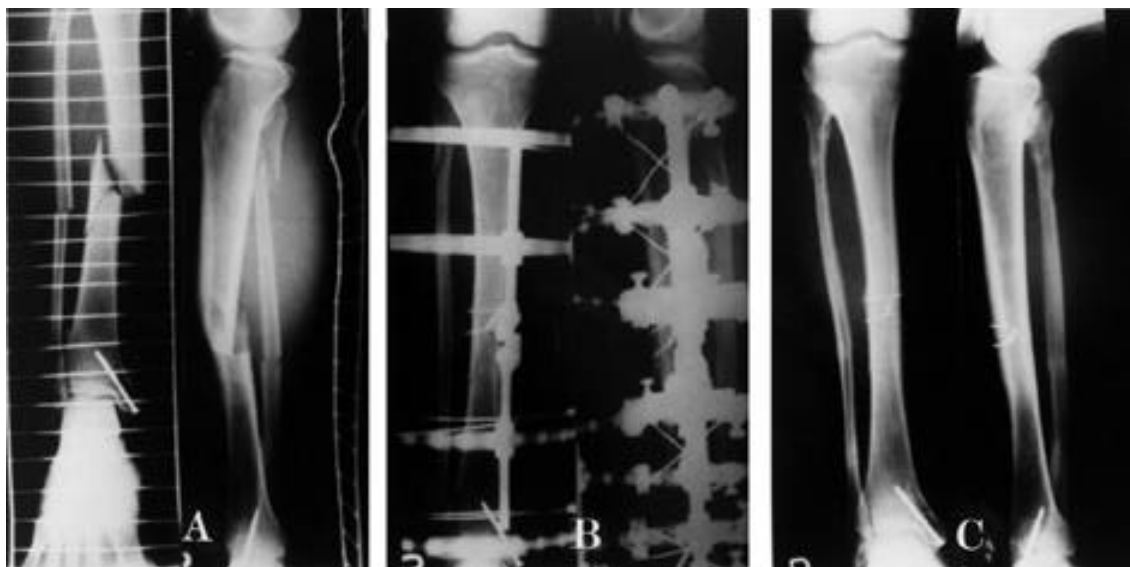


Fig 3. Case 3. A: Sixty year-old man with open type b comminuted fracture. B: Open reduction and internal fixation with interfragmentary K-wire before Repofix application. C: The bony union was confirmed after twenty-five months later.

Oganesyan 1971 M. V. Volkov O. V. Oganesyan 18) 가

Ilizarov ring 가 ± 40 mm, 가 ± 30, ±

bow Ilizarov 120. 가 17).

가 Tucker 16) Ilizarov 4

Repofix Ilizarov 23 25.6

가 , , , 가

18).

Ilizarov bow 가 ring 29.2 (), 36.6 (a), 42.4 (b), 52.4 (c) ,

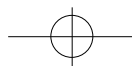
3 Repofix

가

(reposition device) 19).

가 17). 5,6,12) 가

Repofix 가



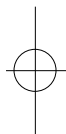
	가	Ilizarov
Repofix	가	
35%	8,15,19)	13% 31%
37.5%		12.5%
가		
Repofix		

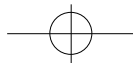
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Abstract

Treatment of Open Tibial Fracture with Repofix External Fixator

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Purpose : The purpose of this study is to evaluate the results of treatment of open tibial fracture with Repofix external fixator by clinical and radiological assessment.

Material and Methods : 24 cases of open tibial fracture, who had been treated with Repofix external fixator from Oct. 1995 to June 1999, were evaluated about distribution of gender, age, cause of injury, fracture site and pattern, and assessed bony union time and complication.

Results : The mean period of application of external fixator was 12.3 weeks and we kept PTB cast until bony union for average 11.5 weeks.

According to Gustilo-Anderson's classification, the mean bony union time was 21.7 weeks(type), 36 weeks(type) and 39 weeks(type), simple fracture was 22 weeks, comminuted fracture was 32 weeks($p < 0.05$).

Complications were pin site infection(9 cases), delayed union(3 cases), nonunion(1 cases) and focal skin necrosis(1 case). There was no loss of motion about joint.

Conclusion : Repofix external fixator, which has the advantages of accurate reduction without extension of wound and decreases motion limitation of neighboring joint, is alternative useful apparatus for open tibial fracture.

Key Words : Tibia, Open fracture, Repofix external fixator

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