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## AO

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: AO 가

: 1993 1 1998 8

1 가 가 34 34 AO 14

AO 가 가

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가 (21%)가

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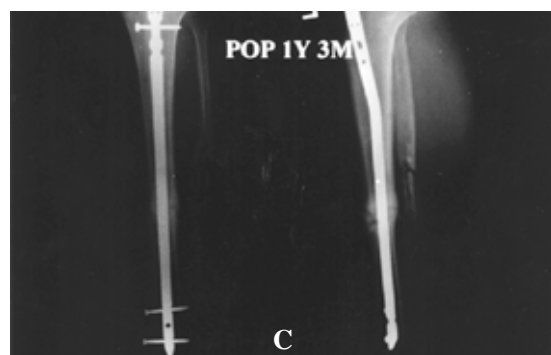
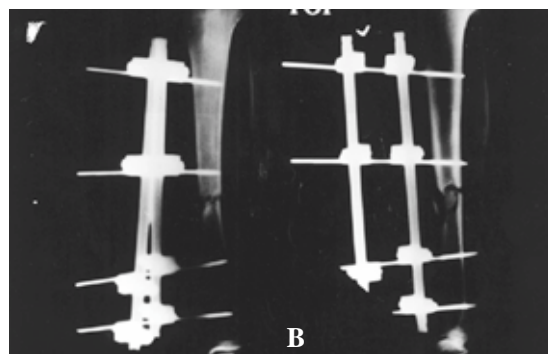
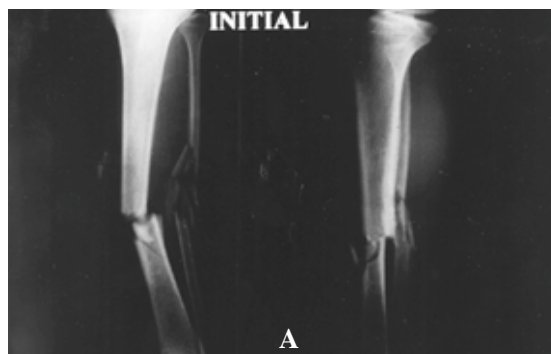
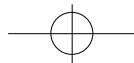
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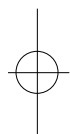




**Fig 1A.** The radiograph of a 25 year old man who had Gustilo type II tibiofibular fractures on the left side.

**B.** The open wound was debrided and AO external fixator was applied.

**C.** Unreamed AO intramedullary nail was inserted after removal of the external fixator. The radiograph of the same patient 1 year and 3 months postoperatively.



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AO 1 가가

34 .

가2 가15 가17

Gustilo-Anderson 1 19 , 2

9 , 3 6 . 19

5 , 6 , 2 .

3.

1. 1993 1 1998 8

AO 1 가가 34

34 . 18 66

38 가30 가4 .

가23 가 ,

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4 . 34 16 (fig.1)

AO 1-2

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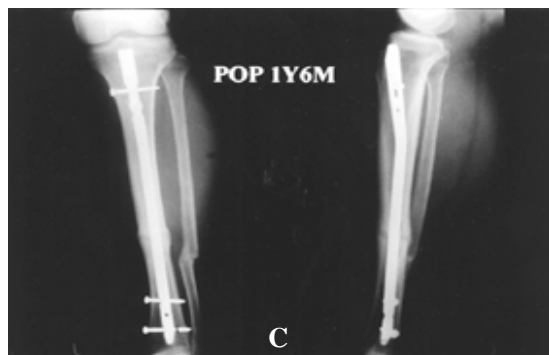
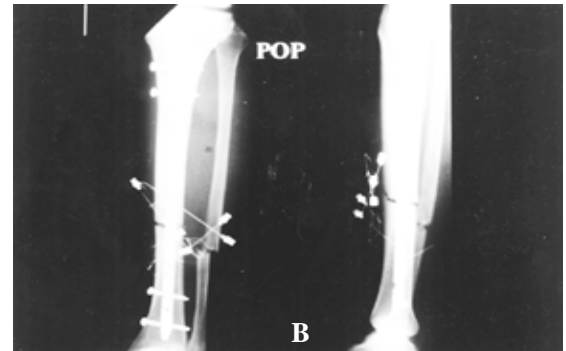
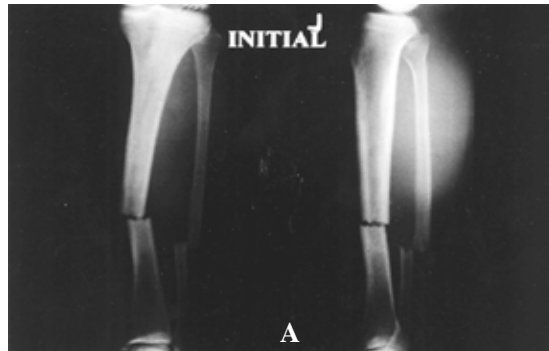
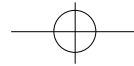
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AO (Fig. 1). 18

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3 AO

(Fig.2, Table 1).



**Fig 2A.** The radiograph of a 34 year old man who had Gustilo type IIIB tibiofibular fractures on the left side.

**B.** The open wound was debrided and undreamed AO intramedullary nail was inserted.

**C.** The radiograph of the same patient 1 year and 6 months postoperatively.

**Table 1.** Classification according to Gustilo-Anderson type

Type	Nailing after external fixation(No.)	Nailing only (No.)
I	5	13
II	7	2
IIIA	3	2
IIIB	1	1
Total	16	18

16 36 ( 26.3 ) 27 ,

25.3

(t-test,

p=0.05).

1mm

가 가 24 , 2mm 가  
가 25 , 3mm 가 가 26.8 ,  
4mm 가 가 26.5

가

(Kruscal-Wallis test,

p=0.05).

AO

25.9 ,

AO

26.2 .

가 (t-test,

p=0.05). 4

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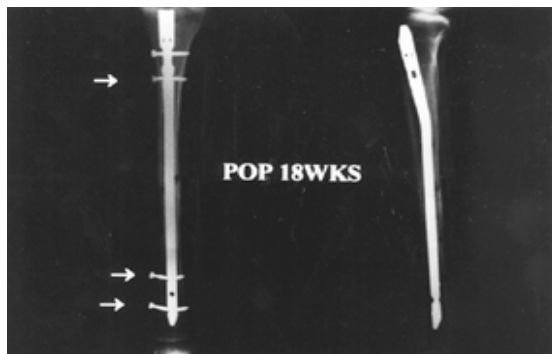
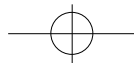
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2

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Klein <sup>5)</sup>

2/3

1/3

**Fig 3.** The radiograph of 39 year old female patient Who had Gustilo type II fractures on the left side. Three interlocking screws found to be broken 18 weeks postoperatively.

가,

2,4,6)

20

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12

16

( 14.7 )

24

36

Perren <sup>7)</sup>

( 30 )

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. 7 (21%)

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(Fig. 3),

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2

. Working length<sup>1)</sup>

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working length

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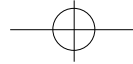
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AO

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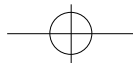
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2.

AO

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### Abstract

## Treatment of the Open Tibial Fractures with Unreamed AO Intramedullary Nail

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**Purpose** : To evaluate the results of open tibial fractures treated with unreamed AO intramedullary nail

**Materials and Methods** : Among the patients of open tibial fractures who were treated with unreamed AO intramedullary nail from January 1993 to August 1998, the authors reviewed 34 patients whose follow-up was possible for more than one year. Fourteen patients were treated with AO external fixator after meticulous debridement, followed by unreamed AO intramedullary nailing, and the other 20 patients were treated with primary unreamed AO intramedullary nailing after debridement. The authors evaluated the results by the union time and the presence of complication.

**Results** : The average union time was 26.3 weeks. There was no significant difference of union time and complications between the patients who were treated with AO external fixator followed by unreamed AO intramedullary nailing and the patients who were treated primarily with debridement and unreamed AO intramedullary nailing. However there was high incidence(21%) of interlocking screw breakage.

**Conclusion** : With meticulous debridement and close observation of the wound, the open tibial fractures can be effectively treated with unreamed AO intramedullary nailing.

Unreamed intramedullary nailing of open tibial fractures immediately after trauma can be recommended in selected cases.

**Key Words** : Tibia, Open Fracture, Unreamed AO Intramedullary Nail