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= Abstract =

A Clinical Comparative Study of Reamed and Unreamed Nail of Femoral Shaft Fracture

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The purpose of this study is to verify the clinical efficacy of unreamed nails compared to reamed nails. The cases of 31 patients in whom 32 fractures of the femoral shaft had been treated by intramedullary nailing with reamed or unreamed nails were prospectively reviewed. Reamed nailing was done for 17 cases, and unreamed nailing was done for 15 cases.

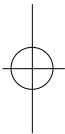
The following results were obtained.

1. According to Winquist-Hansen classification, type 1 was 9 cases, type 2,3,4 were 4,2,2 cases in reamed group, and 7,1,7,0 cases in unreamed group(p-value=0.090).
2. The average operation time was 70.5 minutes in reamed group, and 62.5 minutes in unreamed group(p-value=0.638). The average bleeding amount was 450ml in reamed group, and 218ml in unreamed group(p-value=0.000).
3. The mean times to partial weight bearing and full weight bearing were 4.4 weeks, 7.7 weeks in reamed group retrospectively, and 7.2 weeks, 13.7 weeks in unreamed group(p-value=0.039, 0.002).

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4. The mean union time was 15.2 weeks in reamed group, and 17.7 weeks in unreamed group(p-value=0.237).
5. According to Denker 's functional classification, 15 cases were excellent, 1 case was satisfactory, 1 case was very poor in reamed group, and 13 cases were excellent, 1 case was satisfactory, 1 case was poor in unreamed group(p-value=0.545).

Key Words : Femoral shaft, Intramedullary nailing, Reamed, Unreamed

가23 가 가5 ,
가3 . 14
1940 K , 8 가 ,
üntscher¹⁶⁾가 1972 , , ,
Klemm Schellmann¹⁵⁾, 1984 Winkist ²⁷⁾ .
1/3 21 가 ,
가7 , 가4 . Winkist
--Hansen . 1 16
가 , 2 5 , 3 9
, 4 2 , 1 9
, 2 4 , 3 2 , 4 2 ,
7,1,7,0
가 (p-value=0.090).
3 가
, , 가 , ,
,
7,13,18,19,25,26,27).
3
(piriformis fossa)
, 3
1996 1
53 1
가 31(32) .
17 , 15 (14) .
가21 가 10 (11) ,
29.3 . AIM

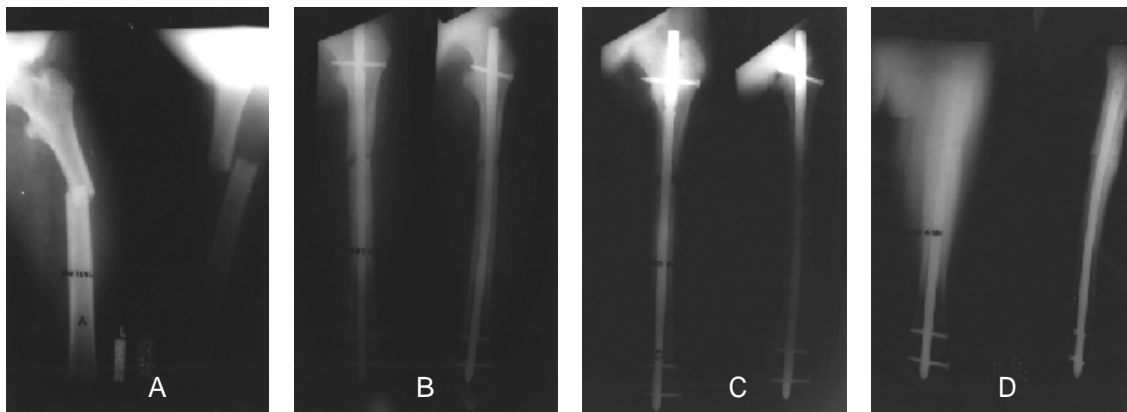


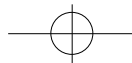
Fig 1. Serial radiographs of 17 years old male treated with static interlocking nail(UFN).

- A. Preoperative radiograph shows proximal one-third femur fracture(Winquist-Hansen type I).
 B. After closed reduction and internal fixation with static interlocking nail.
 C. Postoperatively 6 weeks, debridement and irrigation was done because of deep infection
 D. Union was obtained at postoperatively 6 months.



가 48-72
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 3
 가 , 1940 6.8 .
 Küntscher¹⁶⁾ 450ml
 50 218 ml
 . 6) 4-6
 가 가 , , 4) 가 3, 4
 8,23) 1962 Küntscher¹⁷⁾
 가 , 가
 1979 Pfister 20) 가
 7,13,25,26) 가 4.1
 5.6 가 4.4 7.2
 가 14 4
 , 10
 가 가
 , 가
 가, 9) 5) 16.3 , 2)

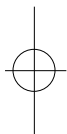




16.1 , 가
20.5 , 6) 17
15.1
17.7 가
가
가
3)
82% 69% 가
17 16 ,
15 14

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0%, Winquist 27) 0.9%, 6) 4% 1) , , :
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Crenshaw⁹⁾ 2) , , , , :
11mm 1) 14mm , , ,
12mm , 28:1684-1689, 1993.
3) , , , :
가 , 31:490-498, 1996.
가^{18,19)}가 4) , , , :
26) , 31:1159-
1986 Schüller Gaudernak²⁴⁾ , Heim 1164, 1996.
가 12) 5) , , , :
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