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## AO Dynamic Condylar Screw

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= Abstract =

### Treatment of Comminuted Supracondylar and Intercondylar Femoral Fractures with AO Dynamic Condylar Screw

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Between 1990 and 1995, 22 comminuted supracondylar and intercondylar femoral fractures in 22 patients were treated with the AO dynamic condylar screw(DCS). Minimum twelve months of clinical and radiographic follow-up evaluation were available on all patients. All cases achieved clinical and radiographic bony union. Functional results were graded using a Schatzker and Lambert's criteria. Results were seen to be excellent to good to fair in 100% of A2 cases, 86% of C2 cases, 75% of A3 cases and 67% of C3 cases. The more comminuted fractures were found to have worse clinical results and more radiographic malunion. The ability to obtain good fixation in osteoporotic bone is distinct advantage of the DCS. The results of DCS fixation compare favorably with previous studies using other fixation devices in comminuted supracondylar and intercondylar femoral fractures.

**Key Words :** Distal femur, Comminuted supracondylar and intercondylar fractures, DCS

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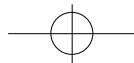
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19 (86%)  
(modified extensile approach) , 3 (14%)  
(medial parapatellar arthrotomy)

. 70  
AO condylar blade plate(CBP) AO  
dynamic condylar screw(DCS) 가 1.5cm

가  
6,15,16,17,21,23) 가 5 2 3

7 DCS  
. 1 a  
Ilizarov

3,4,8,9,10,16)  
AO technique AO DCS  
22

3 DCS  
AO DCS  
DCS AO 95 °  
(plate)  
. CBP

가 ,  
가  
DCS CBP  
2cm  
1/3 -  
guide

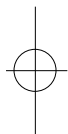
1990 1995  
AO technique AO DCS  
1 가 22 ,  
22 wire  
. Guide wire  
reaming  
tapping , tapping  
. 가  
가 .

15 (68%), 7 (32%)  
, 55 (23 -78 ) ,  
16 (12-35 )  
가 15 (68%) 가  
5 (22%), 1 (5%), 1 (5%)  
. 6 ,  
4 , 3 , 3 .  
AO A  
12 (55%) A2 8 , A3 4 C  
10 (45%) C2 7 , C3 3 .  
6 (27%) Gustilo  
Anderson<sup>7)</sup> 2 , 3 , a 1 .

K-wire



3  
가  
10  
tapping  
3  
DCS  
3  
16 (73%)  
(mild)  
가 3 (14%)  
(moderate)  
10  
가 1 (4%)  
a A3  
3  
가  
가 2 (9%)  
(severe)  
1  
C2  
9  
가  
가 1 C3  
가 2  
가  
1cm  
가  
4-6  
13 (59%), 2cm  
가 7 (93%)  
2 (9%)  
A2  
15 (8 -22 ) 가  
1cm  
, C2  
4 (57%)  
1cm  
A3  
3 (75%), C3  
(100%)  
가  
Schatzker  
Lambert<sup>18)</sup> (Table 1)  
가  
A 12 11 (92%), C  
10 9 (90%)  
A 5 (42%), C 2 (20%)  
가 . 20°  
A2  
Schatzker Lambert  
가 (excellent)- (good)- (fair) (43%), C3 (33%) 가 3  
. A2 C2 100% , 가  
86% 가 A3 75%, C3  
67%  
(failure) A3 1 a A2 10 , A3 17 , C2 18  
2cm C3 19 . C  
. C3 12  
1 2cm 40° 가  
2 A3 1 C3  
가 10 , 18 12  
. C2 1  
22 15 (68%)  
( ) , 11 (50%)





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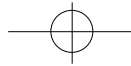
( )  
 가 . 6°  
 6 (27%)  
 A2 4 (50%), A3 3,4,8,9,10,13,16,24)  
 3 (75%), C2 3 (43%) C3 2 (67%)  
 6°  
 가 A3 C3 Tile<sup>19)</sup> Wenzl<sup>25)</sup> 1970 Schatzker  
 가 . C 2mm AO technique AO CBP  
 가 C3 1 70%  
 가 8mm  
 1 가  
 Singh 60 10 2,13,18,22), 가  
 90% - - 60  
 75% AO 12)  
 15 가 Schatzker Lambert  
 18)  
 2 , DCS  
 1 가 15,16,21,23,26)

**Table 1.** Rating system of Schatzker and Lambert

Excellent	full extension: flexion loss less than 10 ° no varus, valgus or rotary deformity no pain perfect joint congruency
Good	no more than on of the following: loss of length not more than 1.2cm less than 10 ° varus or valgus flexion loss not more than 20 ° minimal pain
Fair	any 2 of the criteria in Good category
Failure	any of the following: flexion to 90 ° or less varus or valgus deformity, exceeding 15 ° joint incongruency disabling pain no matter how perfect the X-ray

, A2,A3,C2, C3

가 A2 C2  
 86%  
 가 A3, C3 75%  
 . A3 C3  
 가 가  
 가  
 Zehntner<sup>26)</sup>  
 C3  
 DCS  
 ,  
 ,



DCS

가

가

6

AO DCS

가

67%

가

가 A3

.CBP

Olerud<sup>14)</sup>

C3

A2, C2

Lambert 20)

, Mize 11)

C3

가

DCS

Lewert    Modny<sup>9)</sup>

가 73%

가

가

(supracondylar nail)

3)가

## REFERENCES

DCS

가

60 ,

10

7

3

Benum<sup>1)</sup>

. 10

가 90%

DCS

Gile 6)

가      가

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