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= Abstract =

## Treatment of the Avulsion Injury of the Posterior Cruciate Ligament.

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The posterior cruciate ligament (PCL) plays an integral role in stabilizing the knee joint as a main restraint to posterior displacement of the tibia.

When the tibial insertion of the PCL is avulsed, the knee becomes unstable, so that rotational instability, meniscus injury and degenerative change may develop within several years. Therefore early repair is necessary.

The purpose of this report is to evaluate the usefulness of the direct posterior approach to the avulsion site of PCL.

We treated 8 isolated avulsion injury of the PCL from January 1995 to May 1997 through the way of using the Burks and Schaffer's simplified posterior approach.

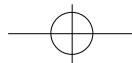
The results were as follows;

1. The stability was achieved with screw fixation.  
and the outcome was above good in 87.5 % of cases.
2. The Burks and Schaffer's simplified posterior approach was concerned as an useful one for the fixation of an avulsion fragment of PCL.

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3. The patients returned daily living within 3 months after operation.

**Key Words:** Fracture, Avulsion, PCL.

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1,2)

Burks Schaffer<sup>5)</sup>

1995 1

1997 5

13

**Table 1.** Grading of outcome

Grade	Criteria
Excellent	A normal Knee. The patient could sit on his haunches.
Good	The knee ached in damp weather and had either a slight limitation of flexion or mild anteroposterior laxity. Otherwise, it was normal.
Fair	The knee ached after exercise, swelled sometimes, and had a little limitation of movement.

2

3

1

가가

8

가5 ,

가3

18

42

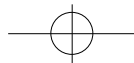


Table 2. Case Analysis

Case	Age/Sex	Injury	Treatment	F/U(Mo.)	Result
1	32/F	Motorcycle TA*	Cancellous screw	17	excellent
2	42/M	Motorcycle TA	Cancellous screw	12	excellent
3	19/M	Nonunion, fall down	Cannulated screw	18	fair
4	35/M	Motorcycle TA	Cannulated screw	14	excellent
5	24/M	Dashboard injury	Cannulated screw	15	good
6	18/F	Pedestrian TA	Cancellous screw	12	excellent
7	20/M	Motorcycle TA	Cancellous screw	15	good
8	19/F	Dashboard injury	Cannulated screw	14	excellent

\* TA - Traffic Accident.

Motorcycle 가 4 ,  
(dashboard) 가 2 , 가  
1 , 1 .  
가 2  
3 cm 가  
4cm 가  
(sural cutaneous nerve)  
(semimembranous tendon)  
(gastrocnemius medial head)  
, K 가  
30 6 Cast  
K

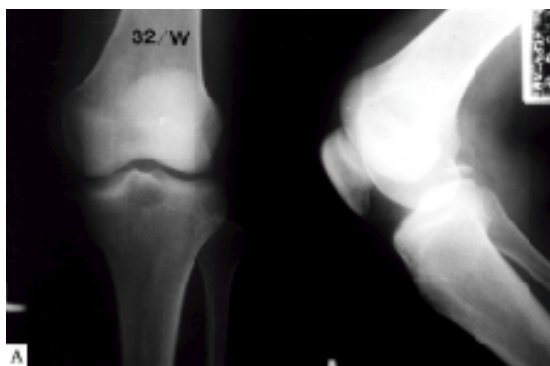


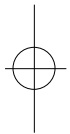
Fig 1-A. Avulsion fragment 1.2 × 1.0 cm size, 0.5 cm displaced.  
B. Fixation with one cancellous screw with a washer.



Fig 2-A. Avulsion Fragment, 1.9 0.6 cm size, 0.6cm displaced.  
B. Fixation with two cannulated screws.



Fig 3-A. Avulsion fragment, 1.6 0.9 cm size, 0.5 cm displaced, nonunion.  
B. Fixation with one cannulated screw.



가 Apley 가

가

(Excellent), 가

(Good),

가

(Fair) 가

(table 1).

18 42 가 5

가 3 12 17

14 . Apley<sup>3)</sup> 가

8 5 가 , 2 가 , 1

(table 2).

3 , 2 ,

1 , 2

1.

0 (32/F)



722 •

/ 11 3

2

CPM

13

(Fig 1).

point)

(central pivot

2.

0 (19/F)

가 1.9 X 0.6 cm

0.6 cm

Hughston<sup>6)</sup>Kennedy<sup>8)</sup>

가

가

(Fig 2).

3.

0 (M/19)

2

6

Torisu<sup>12)</sup>

가

가 1.6 X 0.9 cm

0.5 cm

가

가

1.3 cm

0.3 cm

0.5 cm

3

5

가

(Fig 3).

Kennedy<sup>8)</sup>

가

, Trickey<sup>13)</sup>

1.0 cm

가

1.0 cm

0.5 cm

가

가,

가

가

, Trickey<sup>13)</sup>

Nonabsorbable suture,

Wire suture, screw fixation, staple fixation

Trickey<sup>13)</sup>, McMaster<sup>9)</sup>

가

,





가

donoghue<sup>11)</sup> 5 , Torisu<sup>12)</sup> 20 McMaster<sup>9)</sup> 30 ,  
Hughston<sup>7)</sup> 45 , Trikey<sup>13)</sup> 가

가

30

20

Trikey<sup>13)</sup>

3

2

30

6

Meyer<sup>10)</sup>

6

CPM

가

6

8

ROM

Torisu<sup>12)</sup>

가

2

Abbott<sup>4)</sup>

O'Donoghue, Kennedy Trickey

1995 1

1997 5

S

Hughston Hockey-stick

8

Burks

Schaffner

1.

87.5%

S

2. Burks

Schaffer

가

Hughston<sup>7)</sup>

Hockey-stick

가

Burks Schaffer

가

(semimembranous

3.

tendon)

(gastrocnemius medial head)

5.

3

가

(medial

## REFERENCES

sural cutaneous nerve)  
artery) 가

(middle geniculate

1)

K

2 - 3mm

, 13: 661-666, 1978.