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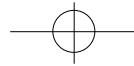
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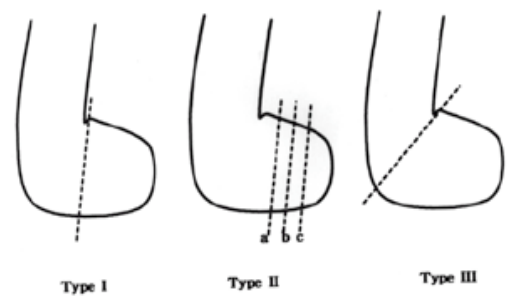
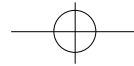


Fig 1. Classification of coronal split fractures of the femoral condyle

Table 1. Case analysis.

Case No.	Age/Sex	Fracture type *, Location	Cause of injury	Combined injury	Treatment	Result
1	48/M	I, medial	slip down	MCL rupture	posteromedial, cannulated screw	Fair
2	35/M	IIa, lateral	slip down	lateral meniscus tear	anteromedial, headless screw	Good
3	34/F	IIa, lateral	slip down	none	anteromedial, headless screw	Good
4	47/F	IIa, lateral	passenger	pubic rami fracture	cast	Poor
5	83/M	IIa, lateral	motorcycle	femur shaft fracture	posterolateral, cannulated screw	Good
6	31/F	III, lateral	pedestrian	femur shaft fracture	anteromedial, headless screw	Good

* according fracture classification by Letenneur et al.



(Table 2). 5 12

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5) Allmann 1) 가 (vertical thrust) Lewis

5) 90°

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Letenneur a MRI Allmann 1)

(Fig.2A,B). MRI 6 4

(Fig.2C). MRI

(Fig.2D)

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Table 2. Method of functional assessment.

Result	Range of motion(°)	Instability	Pain	Walking aids
Good	120	stable	None	None
Fair	120-90	+/-	after exercise	None
Poor	90	+	frequent	Required

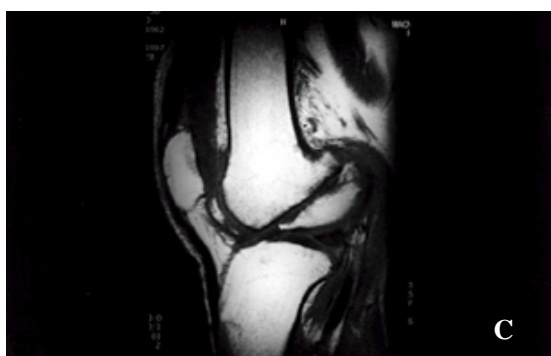
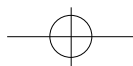


Fig 2A. Preoperative anteroposterior radiograph showing arthritic change at the lateral femoral condyle but there is no definite fracture evidence.

2B. Preoperative lateral radiograph showing displacement of the lateral femoral condyle with nonunion.

2C. MRI showing displacement of the fracture fragment with tear of the lateral meniscus.

2D. Intraoperative finding showing nonunion of coronal split fracture of the lateral femoral condyle.

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Ostermann^{7,8)} 3mm 가

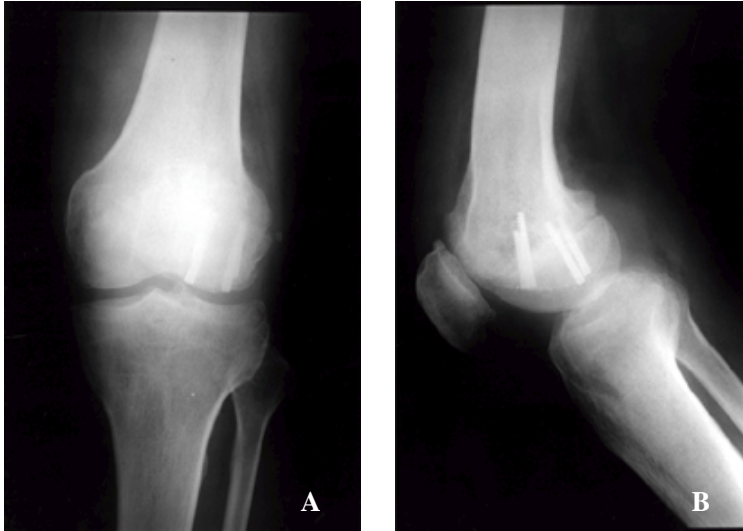
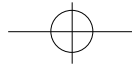


Fig 3A,B. Postoperative
Anteroposterior and lateral
radiographs showing bony
union of the fracture
without displacement.

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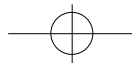
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Abstract

Treatment of Coronal Split Fracture of the Femoral Condyle

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Purpose : To evaluate the results of treatment in 6 cases of coronal split fractures of the femoral condyle

Materials and Methods : Six cases of coronal split fractures of the femoral condyle were treated and followed up 16 to 36 months. Five cases were treated operatively. We used anteromedial approach for 3 cases, posteromedial approach for 1 case and posterolateral approach for other 1 case. Non-displaced case was treated conservatively with cast. We compared the results of each case using Letenneur assessment system.

Results : All 3 cases approached anteromedially and the case approached posterolaterally showed good results. But the case approached posteromedially showed fair result with mild limitation of motion and pain. Non-displaced case treated with cast resulted in poor result with nonunion.

Conclusion : We propose operative treatment for coronal split fracture of the femoral condyle even though there is no displacement. Anteromedial approach and headless screw fixation could be the best method for reduction and fixation of fracture.

Key Words : Femoral condyle, Coronal split fracture, Anteromedial approach