

Table 1. Arthroscopic scoring system of meniscal healing.

Anteroposterior width		Stability	Synovial coverage	Total
Broad (> 5 mm, 4 points)	Good (4 points)	Lifting on probing at 20° of flexion (-)	Good (2 points)	10 ↑
	Fair (3 points)	Lifting on probing at 20° of flexion (+) Lifting on probing at 60° of flexion (-)		
	Loose (2 points)	Lifting on probing at 60° of flexion (+)	Fair (1 points)	
Narrow (2–5 mm, 2 points)	Useless (1 points)	Anterior drawing at 20° of flexion (-) Anterior drawing at 20° of flexion (+)		0
	Detached (0 point)	Totally unstable	Poor (0 point)	
Filamentous (< 2 mm, 0 point)				

Table 2. Demographic and clinical characteristics

	Value	Range
Number of patients/knees	33/33	
Gender, male/female	6/27	
Age (years)	65.3 ± 7.6	49 – 78
Height (m)	1.6 ± 0.1	1.4 – 1.8
Body weight (kg)	60.0 ± 10.7	42.0 – 85.0
Body mass index (kg/m ²)	24.3 ± 2.5	18.4 – 29.4
Femorotibial angle (°)	177.3 ± 1.3	174-179
Kellgren–Lawrence grade (0/1/2/3/4)	0/11/22/0/0/0	
Duration from injury to operation (months)	0.8 ± 0.1	0.6 – 8.3
Duration from operation to second-look (months)	13.0 ± 1.1	12.0 - 14.0
MMPRT classification (Type 1/2/3/4/5)	2/26/1/4/0	
Meniscus healing score (0/1/2/3/4/5/6/7/8/9/10)	0/0/1/2/2/3/8/6/6/2/3	

The values are presented as mean ± standard deviation.

MMPRT medial meniscus posterior root tear.

Table 3. Measurements of magnetic resonance images.

	Preoperative	Postoperative (3 months)	Postoperative (1 year)	P value
MMBW (mm)	8.3 ± 1.2	8.2 ± 1.2	8.3 ± 1.4	n.s.
MMME (mm)	2.7 ± 0.6	3.2 ± 0.7*	3.4 ± 0.8*	n.s.
rMMME (%)	34.3 ± 13.6	40.2 ± 14.4*	42.9 ± 16.1*	n.s.
MMH (mm)	6.4 ± 1.2	6.4 ± 1.2	6.4 ± 1.3	n.s.

The values are presented as mean ± standard deviation.

MMBW Medial meniscus body width, *MMME* Medial meniscus medial extrusion, *rMMME*

Relative medial meniscus medial extrusion, *MMH* medial meniscus height.

P-value, 3 months vs. 1 year postoperatively. *p < 0.05 compared with preoperative values.

n.s. not significant.

Table 4. Comparison of cartilage status of MFC and MTP (ICRS grade).

	Preoperative	Second-look	P value
<u>Medial femoral condyle</u>			
A	1.3 ± 0.5	1.8 ± 0.4	<0.05
B	1.5 ± 1.0	1.5 ± 0.7	n.s.
C	0.8 ± 0.6	1.1 ± 0.7	n.s.
D	1.2 ± 0.6	1.4 ± 0.6	n.s.
E	1.3 ± 0.7	1.5 ± 0.6	n.s.
F	1.1 ± 0.6	1.5 ± 0.4	<0.05
<u>Medial tibial plateau</u>			
G	1.6 ± 0.7	1.9 ± 0.2	n.s.
H	1.5 ± 0.6	2.0 ± 0.4	n.s.

Values are presented as mean ± standard deviation.

MFC medial femoral condyle, *MTP* medial tibial plateau, *ICRS* International Cartilage

Research Society. n.s. not significant.

Table 5. Correlation of cartilage status with MMME and meniscus healing score at second-look arthroscopy

	Postoperative	Semi-quantitative healing score		
	MMME (1 year)	Width	Stability	Synovial
<u>Medial femoral condyle</u>				
A	0.3	-0.3	-0.2	0
B	0.3	-0.3	-0.5*	-0.1
C	0.1	-0.1	-0.4	0.3
D	0.3	-0.2	-0.6*	0.1
E	0.5	-0.3	-0.6*	0.1
F	0.3	-0.1	-0.3	0.2
<u>Medial tibial plateau</u>				
G	0.6	-0.2	-0.2	0.2
H	0.0	-0.1	-0.6*	-0.2

The Spearman rank correlation was used to assess the correlation of cartilage status with MMME and meniscus healing scores. *MMME* Medial meniscus medial extrusion. *P < 0.05.

Table 6. Multivariate linear regression analysis for different variables of patients at 1-year postoperatively.

Dependent variables	Variables	T-value	Standard error	P-value	Adjusted R ²	P-value
<u>Medial femoral condyle</u>						
A	Stability	-1.75	0.21	0.12	0.16	0.31
	Age	0.27	0.02	0.79		
	BMI	0.97	0.13	0.37		
	Time	0.55	0.10	0.60		
	FTA	-1.16	0.13	0.28		
B	Stability	-2.67	0.26	<0.05	0.48	<0.05
	Age	-0.10	0.03	0.93		
	BMI	0.45	0.16	0.67		
	Time	0.45	0.13	0.67		
	FTA	-2.05	0.16	<0.05		
C	Stability	-1.72	0.33	0.13	0.17	0.30
	Age	-0.03	0.03	0.98		
	BMI	0.28	0.20	0.79		
	Time	0.23	0.16	0.82		
	FTA	-1.47	0.20	0.19		
D	Stability	-2.87	0.19	<0.05	0.53	<0.05
	Age	-0.04	0.02	0.97		
	BMI	0.58	0.12	0.58		
	Time	0.79	0.10	0.46		
	FTA	-2.0	0.12	0.09		
E	Stability	-4.46	0.15	<0.01	0.78	<0.01
	Age	0.84	0.02	0.43		
	BMI	1.38	0.10	0.21		
	Time	0.52	0.07	0.62		
	FTA	-2.57	0.10	<0.05		
F	Stability	-3.01	0.14	<0.05	0.64	<0.05
	Age	-0.70	0.01	0.51		
	BMI	0.70	0.08	0.50		
	Time	0.57	0.07	0.58		
	FTA	-3.61	0.08	<0.01		
<u>Medial tibial plateau</u>						
G	Stability	-0.45	0.12	0.67	0.02	0.50
	Age	0.35	0.01	0.74		
	BMI	-0.86	0.08	0.42		
	Time	-0.19	0.06	0.85		
	FTA	-0.63	0.08	0.55		
H	Stability	-2.39	0.12	<0.05	0.56	<0.05
	Age	0.05	0.01	0.96		
	BMI	1.01	0.07	0.34		
	Time	-1.33	0.06	0.22		
	FTA	-1.46	0.07	0.19		

KOOS, Knee Injury and Osteoarthritis Outcome Score; IKDC score, International Knee

Documentation Committee score; VAS pain, visual analog scale pain, BMI, body mass index