

Table 1. Patient demographic including mean values and number of patients

Variables	Group A (n = 18)	Group M (n = 11)	Group AM (n = 15)	<i>P</i> value
Age, years (range)	22 (14-42)	39 (19-59)	29 (14-45)	0.001*
Gender, male/female†	10 / 8	4 / 7	8 / 7	n.s.
Height, m (range)	1.67 (1.49-1.80)	1.65 (1.59-1.73)	1.67 (1.55-1.75)	n.s.
Body weight, kg (range)	71 (52-97)	69 (50-100)	73 (47-93)	n.s.
Body mass index, kg/m ² (range)	26 (21-34)	25 (22-38)	26 (19-39)	n.s.
Interval from injury to preoperative MRI, months (range)	2 (1-5)	4 (1-12)	4 (1-15)	n.s.
Duration from surgery to postoperative MRI, months (range)	3 (3-4)	3 (3-4)	3 (3-4)	n.s.

*Significance was determined with use of a one-way analysis of variance. * $P < 0.05$

†The values are given as the number of patients, with use of Chi-squared test.

Table 1

Table 2. Overall inter-rater and test-retest reliabilities of MRI measurements

	Inter-rater reliability	Test-retest reliability
MML		
Preoperative	0.95 (0.91-0.97)	0.93 (0.87-0.96)
Postoperative	0.90 (0.84-0.94)	0.88 (0.79-0.93)
MMH		
Preoperative	0.91 (0.87-0.95)	0.89 (0.80-0.94)
Postoperative	0.92 (0.88-0.95)	0.89 (0.80-0.94)
MPBW		
Preoperative	0.87 (0.80-0.92)	0.93 (0.87-0.96)
Postoperative	0.94 (0.90-0.96)	0.93 (0.87-0.96)
MMPE		
Preoperative	0.96 (0.94-0.98)	0.96 (0.92-0.98)
Postoperative	0.95 (0.92-0.97)	0.91 (0.84-0.95)
PTFD		
Preoperative	0.95 (0.94-0.97)	0.94 (0.90-0.97)
Postoperative	0.88 (0.82-0.93)	0.87 (0.78-0.93)

The values are given as the ICC, with the 95% CI in parentheses.

Table 2

Table 3. Comparison of differences in MRI measurements between groups A, M and AM at a knee flexion angle of 90°

	Group A	Group M	Group AM	<i>P</i> value
Preoperative MRI				
MML (mm)	43.4 ± 4.8	43.1 ± 3.0	44.6 ± 4.5	n.s.
MMH (mm)	7.5 ± 1.5	7.2 ± 0.7	7.6 ± 1.3	n.s.
MPBW (mm)	13.0 ± 2.1	12.7 ± 2.0	13.9 ± 1.4	n.s.
MMPE (mm)	1.2 ± 0.5	1.7 ± 0.3	4.1 ± 1.5	<0.001*
PTFD (mm)	2.1 ± 3.1	2.6 ± 0.7	1.6 ± 1.9	n.s.
Postoperative MRI				
MML (mm)	41.5 ± 4.8	42.7 ± 3.0	42.7 ± 3.5	n.s.
MMH (mm)	7.0 ± 1.4	7.2 ± 0.5	6.7 ± 1.0	n.s.
MPBW (mm)	12.3 ± 2.0	12.2 ± 2.0	11.8 ± 1.2	n.s.
MMPE (mm)	1.2 ± 0.5	1.3 ± 0.2	1.3 ± 1.3	n.s.
PTFD (mm)	2.7 ± 2.7	2.7 ± 0.6	2.7 ± 1.2	n.s.

Data are displayed as a mean ± standard deviation.

*Significance was determined with use of a one-way analysis of variance. **P*< 0.05

Table 3

Table 4. Postoperative change of MRI measurements in each group at a knee flexion angle of 90°

	Group A			Group M			Group AM		
	Pre-operative	Post-operative	<i>P</i> value	Pre-operative	Post-operative	<i>P</i> value	Pre-operative	Post-operative	<i>P</i> value
MML (mm)	43.4 ± 4.8	41.5 ± 4.8	n.s.	43.1 ± 3.0	42.7 ± 3.0	n.s.	44.6 ± 4.5	42.7 ± 3.5	n.s.
MMH (mm)	7.5 ± 1.5	7.0 ± 1.4	n.s.	7.2 ± 0.7	7.2 ± 0.5	n.s.	7.6 ± 1.3	6.7 ± 1.0	0.011*
MPBW (mm)	13.0 ± 2.1	12.3 ± 2.0	0.006*	12.7 ± 2.0	12.2 ± 2.0	0.004*	13.9 ± 1.4	11.8 ± 1.9	<0.001*
MMPE (mm)	1.2 ± 0.5	1.2 ± 0.8	n.s.	1.7 ± 0.3	1.3 ± 0.2	0.006*	4.1 ± 1.5	1.3 ± 1.3	<0.001*
PTFD (mm)	2.3 ± 3.1	2.7 ± 2.7	n.s.	2.6 ± 0.7	2.7 ± 0.6	n.s.	1.6 ± 1.9	2.7 ± 1.2	0.030*

Data are displayed as a mean ± standard deviation.

*Significance was determined with use of Wilcoxon signed-rank test. **P*< 0.05

Table 4