

Supplementary article data

Moderate varus/valgus malalignment after total knee arthroplasty has little effect on knee function or muscle strength

91 patients assessed after 1 year

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Table 2. Preoperative data comparison (mean (SD), mean difference with 95% confidence interval (CI), or rates) between patients with mechanical and component alignment within $\pm 3^\circ$ and $> 3^\circ$

Preop. data	Mechanical axis			Femoral component			Tibial component		
	$\pm 3^\circ$ n = 62	$> 3^\circ$ n = 29	Mean difference (95% CI), p-value	$\pm 3^\circ$ n = 73	$> 3^\circ$ n = 18	Mean difference (95% CI), p-value	$\pm 3^\circ$ n = 76	$> 3^\circ$ n = 15	Mean difference (95% CI), p-value
Age, years	70 (8)	71 (8)	-1 (-4 to 3) 0.7	71 (8)	67 (7)	4 (-0.1 to 8) 0.04	70 (8)	69 (8)	1 (-3 to 6) 0.5
Female/male	52/10	24/5	1	63/10	13/5	0.2	64/12	12/3	0.7
BMI, kg/m ²	33 (7)	33 (5)	0.2 (-3 to 3) 0.8	33 (6)	32 (7)	1 (-2 to 4) 0.7	33 (6)	32 (6)	2 (-2 to 5) 0.4
ROM, °	94 (13)	95 (16)	-2 (-8 to 5) 0.8	94 (14)	97 (13)	-3 (-11 to 4) 0.5	94 (14)	94 (15)	1 (-7 to 9) 0.8
KSS objective ss	24 (13)	21 (10)	3 (-3 to 8) 0.5	23 (12)	23 (13)	0.4 (-6 to 7) 0.9	23 (12)	27 (10)	-4 (-11 to 3) 0.2
KSS functional ss	58 (13)	55 (12)	3 (-3 to 9) 0.2	58 (13)	54 (12)	4 (-3 to 10) 0.2	57 (13)	60 (10)	-4 (-11 to 3) 0.3
KSS pain ss	16 (6)	14 (6)	2 (-0.5 to 5) 0.2	16 (6)	16 (5)	-0.6 (-4 to 3) 0.6	15 (6)	17 (6)	-2 (-5 to 1) 0.2
KSS pain grades ^a	0/27/31/4	1/15/13/0	0.2	1/35/33/4	0/7/11/0	0.5	1/37/35/3	0/5/9/1	0.7
Radiological OA ^b	17 (2)	17 (2)	-1 (-1 to 0.3) 0.2	17 (2)	16 (2)	1 (-0.2 to 1) 0.1	17 (2)	16 (2)	1 (-0.3 to 2) 0.2

^a (severe/moderate continual/moderate occasional/mild walking)

^b OA grade, 0–21

Table 3. Preoperative and postoperative muscle torques and torque ratios (mean (SD) and mean difference with 95% confidence interval (CI)) between patients with mechanical and component alignment within $\pm 3^\circ$ and $> 3^\circ$

	Mechanical axis				Femoral component				Tibial component			
	$\pm 3^\circ$ n = 62	$> 3^\circ$ n = 29	Mean difference (95% CI)	p-value	$\pm 3^\circ$ n = 73	$> 3^\circ$ n = 18	Mean difference (95% CI)	p-value	$\pm 3^\circ$ n = 76	$> 3^\circ$ n = 15	Mean difference (95% CI)	p-value
Preoperative												
Quadriceps torque (Nm)												
in 90°	85 (39)	83 (35)	3 (-14 to 20)	0.7	84 (35)	87 (45)	-4 (-23 to 16)	0.7	84 (37)	88 (38)	-4 (-26 to 18)	0.5
in 60°	80 (42)	78 (40)	2 (-17 to 20)	0.8	78 (37)	83 (55)	-5 (-26 to 17)	0.7	78 (40)	87 (47)	-10 (-33 to 14)	0.5
Hamstring torque (Nm)												
in 90°	32 (16)	30 (16)	2 (-5 to 9)	0.6	31 (16)	32 (17)	-1 (-9 to 8)	0.9	31 (15)	35 (21)	-4 (-13 to 6)	0.4
in 60°	41 (22)	38 (23)	3 (-7 to 14)	0.3	40 (21)	41 (27)	-2 (-13 to 10)	0.9	39 (21)	45 (30)	-7 (-20 to 6)	0.4
Hamstring-quadriceps ratio (%)												
in 90°	39 (15)	36 (11)	4 (-3 to 10)	0.3	38 (14)	38 (13)	0.1 (-7 to 7)	0.9	38 (14)	37 (14)	1 (-7 to 9)	0.7
in 60°	52 (19)	49 (14)	3 (-5 to 11)	0.8	50 (15)	54 (26)	-4 (-13 to 6)	0.7	51 (17)	52 (19)	-2 (-12 to 9)	0.9
Postoperative												
Quadriceps torque (Nm)												
in 90°	101 (39)	99 (44)	2 (-16 to 20)	0.9	99 (37)	107 (52)	-8 (-29 to 13)	0.8	98 (42)	109 (35)	-10 (-33 to 12)	0.3
in 60°	101 (46)	96 (50)	5 (-17 to 26)	0.6	96 (42)	110 (63)	-13 (-38 to 11)	0.7	98 (48)	105 (41)	-7 (-34 to 20)	0.4
Hamstring torque (Nm)												
in 90°	33 (15)	32 (15)	1 (-5 to 8)	0.7	32 (15)	36 (14)	-5 (-12 to 3)	0.3	32 (14)	36 (16)	-4 (-12 to 4)	0.6
in 60°	48 (21)	45 (24)	3 (-7 to 13)	0.5	46 (21)	51 (26)	-6 (-17 to 6)	0.5	46 (21)	53 (25)	-7 (-20 to 5)	0.5
Hamstring-quadriceps ratio (%)												
in 90°	34 (13)	35 (19)	-1 (-8 to 6)	0.5	34 (15)	37 (13)	-3 (-11 to 5)	0.3	35 (16)	32 (9)	-2 (-6 to 11)	0.8
in 60°	50 (14)	50 (28)	-1 (-10 to 8)	0.4	50 (22)	50 (9)	-0.1 (-11 to 10)	0.5	50 (21)	51 (13)	-1 (-12 to 10)	0.6