

## Supplementary data

Table 1. Characteristics including supplementary data for patients treated by unilateral femoral lengthening with callotaxis (N = 10). Etiology is listed in the foot note

No.	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
1	47	F	32	30.6	R	45	47	23	-1	-2	0	0	0	0	0	0	2.8	3.0	4.3	4.2	3.6	4.4	71	-13	-16.8	N
2	54	M	27	31.1	L	33	30	13	-1	-1	0	0	3	0	2	0	2.5	3.2	1.5	4.2	3.2	5.0	81	-11	-6.5	N
3	46	F	33	25.3	L	35	35	-10 <sup>a</sup>	1	1	0	0	1	1	1	0	4.0	4.5	5.4	4.9	5.1	5.3	106	0	.6	N
4	44	M	27	30.4	R	44	30	40 <sup>b</sup>	-2	-1	1	0	3	0	2	0	2.7	4.0	1.5	4.8	2.4	5.9	33	-17	-25.0	Y
5	48	F	34	34.5	R	42	42	13	-1	-2	0	0	2 <sup>c</sup>	1	2 <sup>c</sup>	0	3.3	4.0	3.3	3.7	4.0	4.7	10	-10	-15.5	Y
6	44	F	31	27.4	L	32	40	15	-2	1	0	0	0	0	0	0	4.2	4.6	5.3	4.7	5.2	6.3	0	-12	-12.4	N
7	44	F	30	22.1	R	32	35	0	-1	-1	0	0	2 <sup>c</sup>	0	1	0	3.6	3.3	3.4	4.1	4.4	3.6	93	-13	-2.6	N
8	44	F	30	28.0	L	30	37	0	1	-1	2	0	0	0	1	0	2.0	4.0	4.1	4.4	5.0	3.3	100	-9	-4.2	Y
9	49	M	30	27.5	R	55	57	0	2	1	2	0	0	0	1	0	1.8	3.3	3.3	4.2	5.3	5.6	94	-15	-24.1	Y
10	46	F	32	24.0	R	45	46	0	-1	-1	0	0	0	0	0	0	4.5	4.0	4.3	4.5	5.7	6.1	61	-8	-13.2	N

<sup>a</sup> Overcorrection.

<sup>b</sup> Possible explanations: The skeletal age at time of surgery is unknown. The patient might have had remaining growth on the contralateral femur at the time of lengthening, resulting in an undercorrection. Furthermore, the patient sustained a fracture through the regenerate after frame removal. No loss of length was reported during treatment and further follow-up of the fracture, but radiographs are not available to confirm this. However, the fracture through the regenerate resulted in a remaining varus deformity in the proximal femur of 25° (35 mm distal of the trochanter minor), a deformity very close to the hip joint, which contributes to the functional LLD and some knee varus, which is accounted for under results.

<sup>c</sup> Osteophyte (ost).

A. Age, years

B. Sex, F = Female/M = Male

C. Follow-up, years

D. BMI

E. Operated side, R = Right/L = Left

F. Preoperative leg length discrepancy, mm

G. Lengthened, mm

H. Leg length discrepancy at assessment, mm

I. Alignment lengthened limb graded after Stevens et al. (1999): Negative zones 2–3 (varus), positive zones 2–3 (valgus), and zone ±1 (normal)

J. Alignment unlengthened limb, see above (I)

K. Osteoarthritis (OA) hip lengthened side according to Kellgren and Lawrence: Grade 0, 1, and 2/ost = No OA. Grade 2, 3, and 4 = OA.

L. OA hip unlengthened side, see above (K)

M. OA knee lengthened side according to Kellgren and Lawrence with the precision proposed by Felson et al. (2011):

Grade 0, 1, and 2/ost = No OA. Grade 2, 3, and 4 = OA.

N. OA knee unlengthened side, see above (M)

O. OA femoropatellar lengthened side, see above (M)

P. OA femoropatellar unlengthened side, see above (M)

Q. Joint space width (JSW) hip lengthened side, mm

R. JSW hip unlengthened side, mm

S. JSW medial knee lengthened side, mm

T. JSW medial knee unlengthened side, mm

U. JSW lateral knee lengthened side, mm

V. JSW lateral knee unlengthened side, mm

W. Mean limb symmetry index for the single-, triple-, timed-, and cross-over hop tests, % (see main text/Materials and methods)

X. Difference from sex- and age-matched reference values for the 30-s sit-to-stand test (patient's result–reference value), number of repetitions

Y. Difference from sex- and age-matched reference values for the stair test (reference value–patient's result), seconds

Z. Complications, Y = Yes/N = No

Etiology:

No 1. Hypoplasia

No 2. Post traumatic

No 3. Idiopathic

No 4. Sequela osteomyelitis

No 5. Hypoplasia

No 6. Post traumatic

No 7. Hemihyperplasia

No 8. Idiopathic

No 9. Post traumatic

No 10. Hemihyperplasia