



**Figure 1. Participant flow**

**Table 1. Baseline demographic and clinical characteristics of the participants**

Characteristics	Group A (n=20) mean ± SD or n	Group B (n=20) mean ± SD or n	Group C (n=20) mean ± SD or n
Age (years)	47.15±8.56	46.9±8.5	45.9±11.33
Sex			
Female	7	9	4
Male	13	11	16
Body height (cm)	173.3±7.31	167.85±8.22	175.2±9.73
Body weight (kg)	80.5±16.99	78.05±12.7	84.55±18.14
Affected limb			
Dominant	18	12	14
Non-dominant	2	8	6
Affected limb			
Left	5	11	6
Right	15	9	14
Duration of symptoms (mo)	7.1±5.25	8.1±8.25	6.8±7.7

## Primary outcome measure

**Table 2. Rest pain**

		Group A	Group B	Group C
<b>T<sub>0</sub></b>	n	20	20	20
	$\bar{x}$	2,55	2,7	1,63
	SD	2,09	1,75	2
	Me	3	3	1
<b>T<sub>1</sub></b>	n	20	20	20
	$\bar{x}$	1,75	0,9	1,16
	SD	1,74	1,07	1,54
	Me	1,5	0,5	0,5
<b>T<sub>2</sub></b>	n	20	20	19
	$\bar{x}$	1,35	1	1,26
	SD	1,63	1,45	1,37
	Me	0,5	0,5	1
<b>T<sub>3</sub></b>	n	20	20	19
	$\bar{x}$	0,9	0,7	0,9
	SD	1,48	1,42	1,1
	Me	0	0	0
<b>T<sub>4</sub></b>	n	20	20	19
	$\bar{x}$	0,6	0,6	0,53
	SD	1,27	1,27	0,91
	Me	0	0	0

T<sub>0</sub> – baseline; T<sub>1</sub> – 1 week post-therapy; T<sub>2</sub> – 3 weeks post-therapy; T<sub>3</sub> – 6 weeks post-therapy; T<sub>4</sub> – 12 weeks post-therapy

**Table 3. Night pain**

		Group A	Group B	Group C
T <sub>0</sub>	n	20	20	20
	$\bar{x}$	1,9	1,9	2,47
	SD	2,38	1,94	2,82
	Me	0	1,5	0,5
T <sub>1</sub>	n	20	20	20
	$\bar{x}$	1,47	0,8	1,74
	SD	1,87	1,4	2,38
	Me	0	0	0
T <sub>2</sub>	n	20	20	19
	$\bar{x}$	1,05	0,85	1,58
	SD	1,55	1,46	2,5
	Me	0	0	0
T <sub>3</sub>	n	20	20	19
	$\bar{x}$	0,84	0,85	0,9
	SD	1,5	1,5	1,63
	Me	0	0	0
T <sub>4</sub>	n	20	20	19
	$\bar{x}$	0,63	0,8	1
	SD	1,3	1,4	1,92
	Me	0	0	0

T<sub>0</sub> – baseline; T<sub>1</sub> – 1 week post-therapy; T<sub>2</sub> – 3 weeks post-therapy; T<sub>3</sub> – 6 weeks post-therapy; T<sub>4</sub> – 12 weeks post-therapy

**Table 4. Active pain**

		Group A	Group B	Group C
T <sub>0</sub>	n	20	20	20
	$\bar{x}$	7,2	7,05	6,63
	SD	1,64	1,82	1,71
	Me	7	7	6
T <sub>1</sub>	n	20	20	20
	$\bar{x}$	5	4,4	4,84
	SD	2,27	1,67	2,36
	Me	4,5	5	5
T <sub>2</sub>	n	20	20	19
	$\bar{x}$	3,35	4,05	4,9
	SD	2,62	2,31	2,23
	Me	3	4,5	4
T <sub>3</sub>	n	20	20	19
	$\bar{x}$	2,2	4,2	4,05
	SD	2,76	2,63	1,68
	Me	1	3,5	4
T <sub>4</sub>	n	20	20	19
	$\bar{x}$	1,75	3,7	3,47
	SD	2,79	2,54	2,01
	Me	0	3	3

T<sub>0</sub> – baseline; T<sub>1</sub> – 1 week post-therapy; T<sub>2</sub> – 3 weeks post-therapy; T<sub>3</sub> – 6 weeks post-therapy; T<sub>4</sub> – 12 weeks post-therapy

**Table 5. Strength of the wrist extensors of the affected limb**

		Group A	Group B	Group C
<b>T<sub>0</sub></b>	n	20	20	20
	$\bar{x}$ [kG]	9,3	10,4	9,58
	SD	3,7	3,15	3,79
	Me [kG]	9	10	8,5
<b>T<sub>1</sub></b>	n	20	20	20
	$\bar{x}$ [kG]	11,4	12,35	10,84
	SD	3,95	3,76	4,3
	Me [kG]	10	12	10,5
<b>T<sub>2</sub></b>	n	20	20	19
	$\bar{x}$ [kG]	12,15	12,55	10,95
	SD	4,03	4,35	4,22
	Me [kG]	11,5	12	10
<b>T<sub>3</sub></b>	n	20	20	19
	$\bar{x}$ [kG]	12,45	12,9	10,95
	SD	3,98	4,2	3,95
	Me [kG]	11,5	12	10
<b>T<sub>4</sub></b>	n	20	20	19
	$\bar{x}$ [kG]	12,65	12,8	10,74
	SD	3,98	4,47	4,01
	Me [kG]	12	11	10

T<sub>0</sub> – baseline; T<sub>1</sub> – 1 week post-therapy; T<sub>2</sub> – 3 weeks post-therapy; T<sub>3</sub> – 6 weeks post-therapy; T<sub>4</sub> – 12 weeks post-therapy

**Table 6. Strength of the wrist extensors of the unaffected limb**

		Group A	Group B	Group C
<b>T<sub>0</sub></b>	n	20	20	20
	$\bar{x}$ [kG]	13,5	12,55	12,37
	SD	4,11	4,16	4,17
	Me [kG]	12	12	12
<b>T<sub>1</sub></b>	n	20	20	20
	$\bar{x}$ [kG]	14,2	13,45	12,95
	SD	4,11	4,14	4,29
	Me [kG]	14,5	12	13
<b>T<sub>2</sub></b>	n	20	20	19
	$\bar{x}$ [kG]	13,8	13,35	13,05
	SD	3,94	4,12	4,16
	Me [kG]	13	12	13
<b>T<sub>3</sub></b>	n	20	20	19
	$\bar{x}$ [kG]	12,85	13,6	13,42
	SD	3,88	4,11	4,27
	Me [kG]	12,5	12,5	14
<b>T<sub>4</sub></b>	n	20	20	19
	$\bar{x}$ [kG]	13,3	13,55	13,11
	SD	3,81	4,17	4,08
	Me [kG]	13,5	12	14

T<sub>0</sub> – baseline; T<sub>1</sub> – 1 week post-therapy; T<sub>2</sub> – 3 weeks post-therapy; T<sub>3</sub> – 6 weeks post-therapy; T<sub>4</sub> – 12 weeks post-therapy

**Table 7. Strength of the wrist flexors of the affected limb**

		Group A	Group B	Group C
<b>T<sub>0</sub></b>	n	20	20	20
	$\bar{x}$ [kG]	14,4	14,15	14,21
	SD	4,08	4,26	4,37
	Me [kG]	14	12	15
<b>T<sub>1</sub></b>	n	20	20	20
	$\bar{x}$ [kG]	17,6	16,55	15,32
	SD	5,92	4,41	4,18
	Me [kG]	15	16	15,5
<b>T<sub>2</sub></b>	n	20	20	19
	$\bar{x}$ [kG]	18,4	15,95	15,95
	SD	5,92	4,38	4,44
	Me [kG]	16	15	16
<b>T<sub>3</sub></b>	n	20	20	19
	$\bar{x}$ [kG]	19,5	16,2	16,21
	SD	7,35	4,69	4,76
	Me [kG]	17	16	16
<b>T<sub>4</sub></b>	n	20	20	19
	$\bar{x}$ [kG]	19,75	16,5	16,58
	SD	7,48	4,97	5,07
	Me [kG]	17,5	16	16

T<sub>0</sub> – baseline; T<sub>1</sub> – 1 week post-therapy; T<sub>2</sub> – 3 weeks post-therapy; T<sub>3</sub> – 6 weeks post-therapy; T<sub>4</sub> – 12 weeks post-therapy

**Table 8. Strength of the wrist flexors of the unaffected limb**

		Group A	Group B	Group C
<b>T<sub>0</sub></b>	n	20	20	20
	$\bar{x}$ [kG]	18,5	16,6	16,9
	SD	6,84	4,85	5,2
	Me [kG]	19	15	19
<b>T<sub>1</sub></b>	n	20	20	20
	$\bar{x}$ [kG]	18,65	16,8	16,9
	SD	6,92	4,85	4,61
	Me [kG]	20	14,5	19
<b>T<sub>2</sub></b>	n	20	20	19
	$\bar{x}$ [kG]	19,1	16,25	17,58
	SD	6,87	4,32	4,83
	Me [kG]	19	15	18
<b>T<sub>3</sub></b>	n	20	20	19
	$\bar{x}$ [kG]	19,15	16,85	17,74
	SD	6,98	4,76	4,9
	Me [kG]	19	15	19
<b>T<sub>4</sub></b>	n	20	20	19
	$\bar{x}$ [kG]	18,75	16,75	18,16
	SD	6,83	4,51	4,85
	Me [kG]	18	15	20

T<sub>0</sub> – baseline; T<sub>1</sub> – 1 week post-therapy; T<sub>2</sub> – 3 weeks post-therapy; T<sub>3</sub> – 6 weeks post-therapy; T<sub>4</sub> – 12 weeks post-therapy

**Table 9. The grip strength of the affected limb**

		Group A	Group B	Group C
<b>T<sub>0</sub></b>	n	20	20	20
	$\bar{x}$ [kG]	39,3	39	40,16
	SD	9,85	12,16	12,86
	Me [kG]	36,5	35,2	41
<b>T<sub>1</sub></b>	n	20	20	20
	$\bar{x}$ [kG]	42,2	42,02	42,16
	SD	9,99	11,7	12,65
	Me [kG]	40	38,5	42
<b>T<sub>2</sub></b>	n	20	20	19
	$\bar{x}$ [kG]	43	42,79	41,05
	SD	9,66	11,83	13,49
	Me [kG]	41,5	39,6	42
<b>T<sub>3</sub></b>	n	20	20	19
	$\bar{x}$ [kG]	45,25	43,07	42,68
	SD	10,56	11,85	12,77
	Me [kG]	45	39,05	43
<b>T<sub>4</sub></b>	n	20	20	19
	$\bar{x}$ [kG]	45,6	44,77	43,37
	SD	10,09	12,17	13,38
	Me [kG]	45	40,7	44

T<sub>0</sub> – baseline; T<sub>1</sub> – 1 week post-therapy; T<sub>2</sub> – 3 weeks post-therapy; T<sub>3</sub> – 6 weeks post-therapy; T<sub>4</sub> – 12 weeks post-therapy

**Table 10. The grip strength of the unaffected limb**

		Group A	Group B	Group C
<b>T<sub>0</sub></b>	n	20	20	20
	$\bar{x}$ [kG]	42,95	41,95	44,76
	SD	8,7	12,92	11,88
	Me [kG]	43,5	39,5	48,6
<b>T<sub>1</sub></b>	n	20	20	20
	$\bar{x}$ [kG]	43,4	42,6	44,38
	SD	8,98	11,26	12,68
	Me [kG]	45	40	48,6
<b>T<sub>2</sub></b>	n	20	20	19
	$\bar{x}$ [kG]	43,65	42,8	45,62
	SD	9,01	11,43	12,17
	Me [kG]	44,5	40,5	48,6
<b>T<sub>3</sub></b>	n	20	20	19
	$\bar{x}$ [kG]	44,2	42,75	45,43
	SD	8,73	11,21	11,24
	Me [kG]	45	39	48,6
<b>T<sub>4</sub></b>	n	20	20	19
	$\bar{x}$ [kG]	44,15	42,85	45,66
	SD	8,62	11,11	12,27
	Me [kG]	45	40	48,6

T<sub>0</sub> – baseline; T<sub>1</sub> – 1 week post-therapy; T<sub>2</sub> – 3 weeks post-therapy; T<sub>3</sub> – 6 weeks post-therapy; T<sub>4</sub> – 12 weeks post-therapy

## Secondary outcome measures

**Table 11. Laitinen scale**

		Group A	Group B	Group C
<b>T<sub>0</sub></b>	n	20	20	20
	$\bar{x}$	6,47	6,7	6,53
	SD	2,22	2	2,04
	Me	6,5	7	6
<b>T<sub>1</sub></b>	n	20	20	20
	$\bar{x}$	4,68	4,05	5,21
	SD	2	1,54	1,48
	Me	4	4	5
<b>T<sub>2</sub></b>	n	20	20	19
	$\bar{x}$	3,42	3,85	4,68
	SD	2,5	1,81	1,64
	Me	3	3,5	5
<b>T<sub>3</sub></b>	n	20	20	19
	$\bar{x}$	2,58	3,95	4,26
	SD	2,59	1,88	1,52
	Me	2	3	5
<b>T<sub>4</sub></b>	n	20	20	19
	$\bar{x}$	1,63	3,5	3,42
	SD	2,65	1,57	2,04
	Me	0	3	3

T<sub>0</sub> – baseline; T<sub>1</sub> – 1 week post-therapy; T<sub>2</sub> – 3 weeks post-therapy; T<sub>3</sub> – 6 weeks post-therapy; T<sub>4</sub> – 12 weeks post-therapy

**Table 12. PRTEE questionnaire score**

		Group A	Group B	Group C
<b>T<sub>0</sub></b>	n	20	20	20
	$\bar{x}$	58,53	55,18	56,08
	SD	23,81	22,56	23,31
	Me	53,5	48,5	60,5
(Q1 ; Q3)		(42,88 ; 75,5)	(36,88 ; 69,75)	(41,75 ; 68,13)
<b>T<sub>1</sub></b>	n	20	20	20
	$\bar{x}$	37,83	34,35	44,42
	SD	24,7	16,56	23,5
	Me	32	37,25	47,75
<b>T<sub>2</sub></b>	n	20	20	19
	$\bar{x}$	24,85	32,6	44,79
	SD	24,76	23,25	23,53
	Me	16	31,25	44
<b>T<sub>3</sub></b>	n	20	20	19
	$\bar{x}$	15,65	34,1	35,45
	SD	22,47	26,17	18,1
	Me	4,5	25,25	36
<b>T<sub>4</sub></b>	n	20	20	19
	$\bar{x}$	12,93	27,95	30,87
	SD	22,33	20,65	18,86
	Me	0	22	28

T<sub>0</sub> – baseline; T<sub>1</sub> – 1 week post-therapy; T<sub>2</sub> – 3 weeks post-therapy; T<sub>3</sub> – 6 weeks post-therapy; T<sub>4</sub> – 12 weeks post-therapy

**Adverse events:**

**Table 13. A summary of all anticipated and unanticipated serious adverse events.**

Focused shock wave therapy		Ultrasound therapy	
Anticipated adverse events	Unanticipated adverse events	Anticipated adverse events	Unanticipated adverse events
Subcutaneous hematoma during the first application in 2 patients, in 1 patient during the second treatment.	<b>none</b>	none	none
Slight swelling in the lateral epicondyle of the humerus in 3 patients after the first procedure and in 2 patients after the second procedure.			
12 patients each time reported minor but tolerable pain at the shock wave application site.			