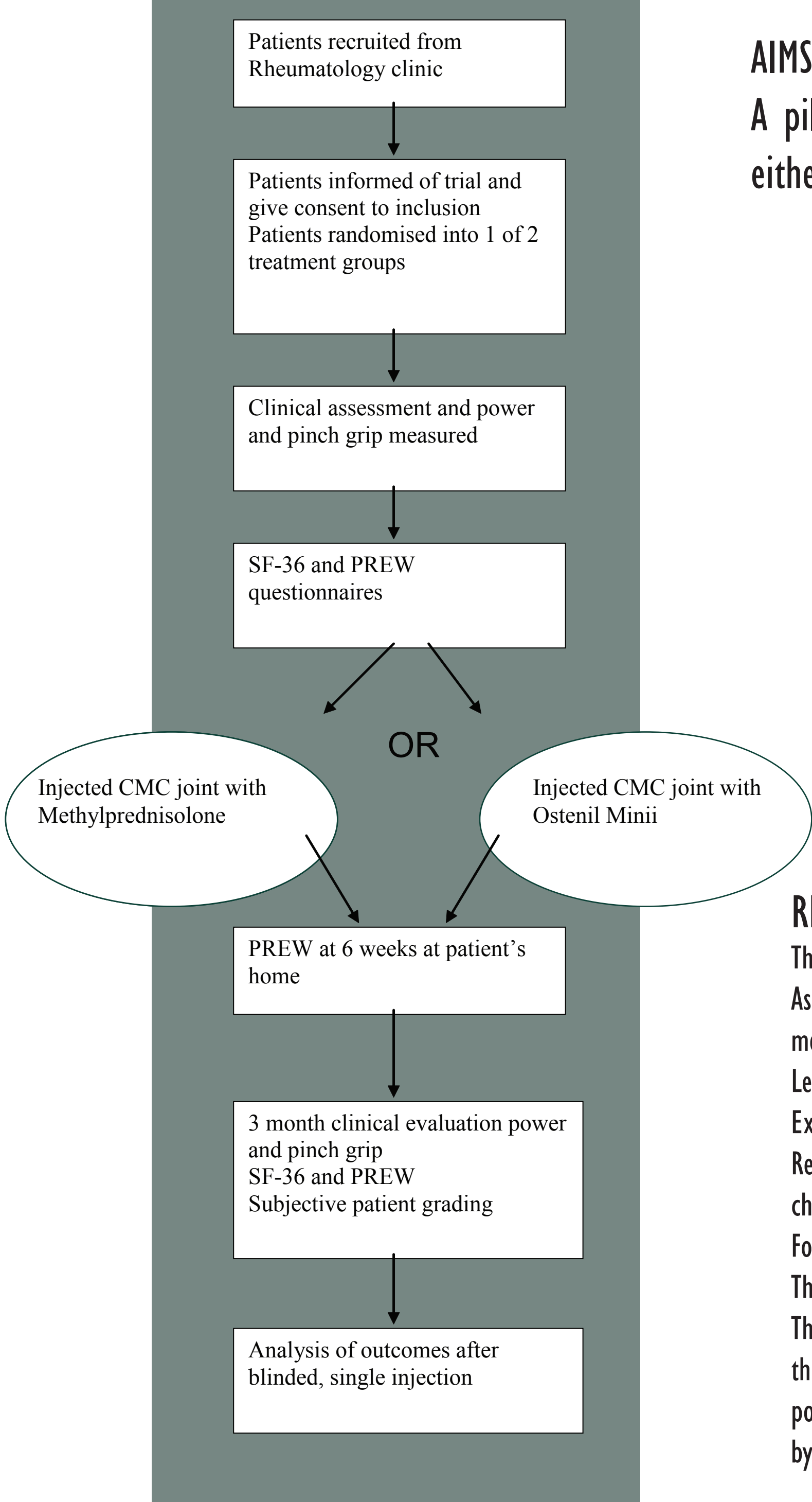




Ostenil mini compared to Depomedrone for base of thumb osteosrthritis - A randomised controlled pilot trial

L J Turret, L R Irwin, T R Daymond
Sunderland Royal Hospital, Tyne and Wear, United Kingdom



AIMS:

A pilot study was designed to examine the effectiveness of a single injection of either Ostenil mini or Depomedrone in a blinded randomised clinical trial.



RESULTS:

The following tables detail the numerical results from the questionnaires scores and the power and grip strengths along with the subjective score given for each participant.

As you can see correlation is difficult and there were no statistically significant trends between the two groups. Patient age, hand dominance and classification correlations with outcome of the injection are not attempted here as the numbers are too small to comment.

Less than half of the changes in the SF-36 scores, whether better or worse correlated with the patient's own subjective ratings either positively or negatively.

Examining both groups there were 12 good/ excellent ratings subjectively. Only 7 individuals showed an increase in the PREW scores and, of those, only 3 coincided with a positive subjective rating.

Regarding the power and pinch grip measurements: Two of those receiving bilateral injections had Ostenil mini in both thumbs and one patient had improvement in both pinch grips but was worse in the power grips bilaterally. The other patient was essentially unchanged on one side, for both types of measurement, but was worse on the other, again for both measurements.

Four of those injected with Depomedrone had an improvement in the pinch grip, and four were weaker while two were unaltered. Four of the Ostenil group were stronger, three were unaltered and six were weaker.

The power measurement showed a similar confusing picture and neither measurement correlated positively with the patient's subjective rating. Six with a "good" rating were weaker on objective assessment.

The clinician did note patients' comments at the time of the injections and found that the Ostenil was well tolerated both at the time of injection and in the first 24- 48 hours. One noted mild discomfort for a day after the injection. One had severe pain in one thumb following bilateral Ostenil injections that required a local anaesthetic wrist block to alleviate. This patient had, had no pain in the other side and eventually scored a "good" outcome and improvement in both pinch grips. All others in the Ostenil group reported no discomfort either during or immediately after the injection. Pain and discomfort was noted in almost all of the Depomedrone group when questioned. Many of them had had injections in the past, either at the same or other sites and were not alarmed by this. There were no significant complications in either group..

SF-36 scores

SF-36 week 0	SF-36 week 12	Difference	Patient Impression
314.5	448	133.5	good
585	574.5	-10.5	poor
401	342	-59	fair
507	472	-35	good
181	115	-66	useless
329.5	363	33.5	good
600	559	-41	fair
579	691.5	112.5	good
521.5	629	107.5	good
298.5	363	64.5	excellent
504	380	-124	good
511.5	545	33.5	good
356.5	321.5	-35	good
147.5	168.5	21	fair
239.5	166	-73.5	useless
177.5	326.5	149	useless
217.5	192.5	-25	good
229.5	244.5	15	fair

PREW scores at week 0, 6 and 12

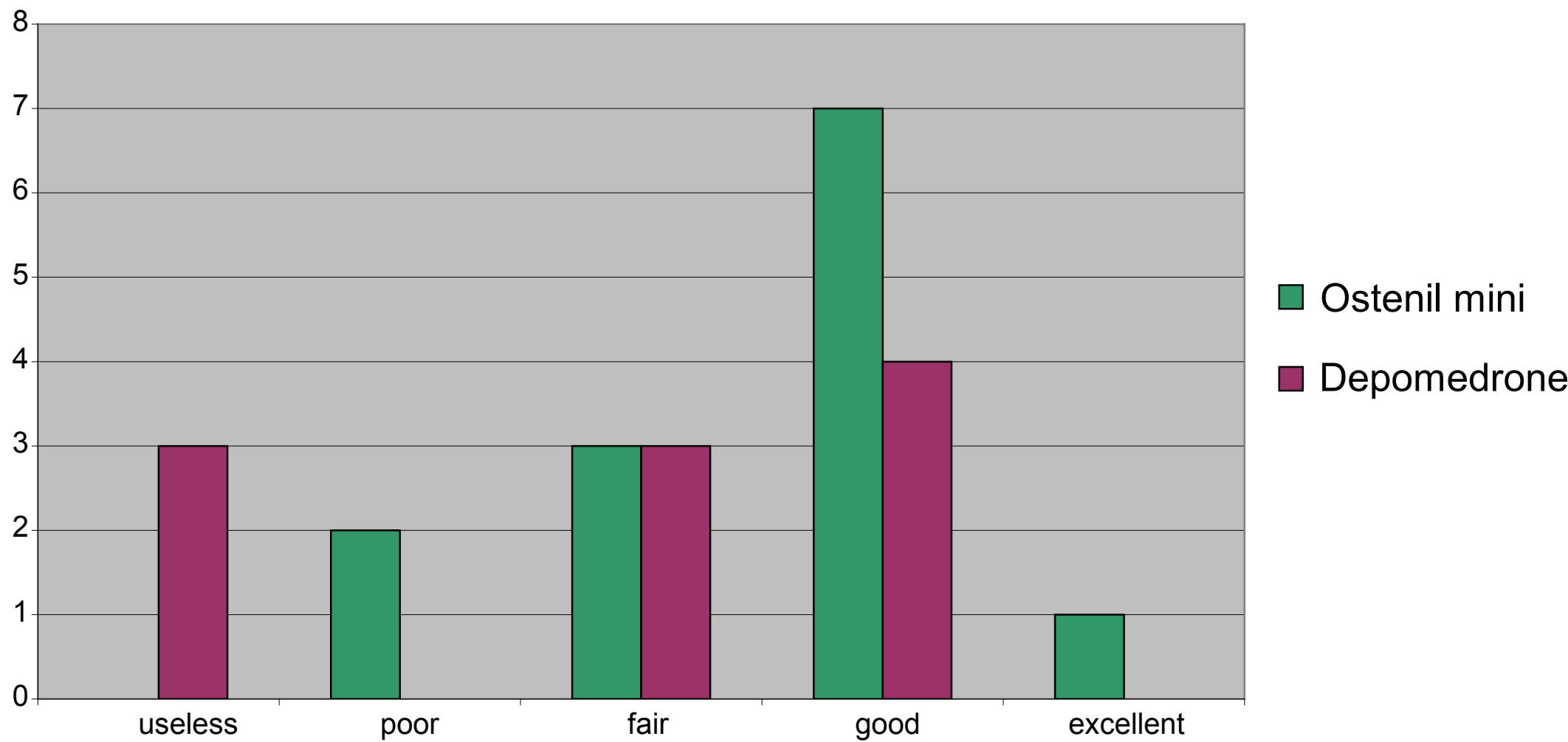
pain	function	Total 1	pain	function	Total 2	pain	function	Total 3	prew1-2	prew1-3	Patient Impression
39	79	78.5	27	21	37.5	38	50	63	-41	-15.5	good
42	64	74	44	85	86.5	37	73	73.5	12.5	-0.5	poor
42	64	74	44	85	86.5	38	72	74	12.5	0	poor
36	75	73.5	32	74	69	39	69	73.5	-4.5	0	fair
44	65	76.5	28	58	57	24	46	47	-19.5	-29.5	good
44	65	76.5	29	60	59	22	51	47.5	-17.5	-29	good
31	42	52	45	92	91	42	88	86	39	34	useless
47	51	72.5	10	17	18.5	24	34	41	-54	-31.5	good
47	51	72.5	27	57	55.5	39	66	72	-17	-0.5	good
33	43	54.5	12	27	25.5	21	43	42.5	-29	-12	fair
33	43	54.5	26	53	52.5	18	50	43	-2	-11.5	fair
36	34	53	18	27	31.5	36	55	63.5	-21.5	10.5	good
34	12	40	24	40	44	27	13	33.5	4	-6.5	good
46	80	86	2	0	2	0	0	0	-84	-86	excellent
37	26	50	30	50	55	41	46	64	5	14	good
20	59	49.5	15	43	36.5	26	46	49	-13	-0.5	good
37	67	70.5	ua	ua	0	45	53	71.5	-70.5	1	good
38	91	83.5	ua	ua	0	42	84	84	-83.5	0.5	fair
37	64	69	ua	ua	0	30	61	60.5	-69	-8.5	useless
45	83	86.5	45	95	92.5	36	81	76.5	6	-10	useless
42	75	79.5	ua	ua	0	41	73	77.5	-79.5	-2	good
38	70	73	44	72	80	46	86	89	7	16	fair
38	70	73	48	88	92	46	86	89	19	16	fair

Power and grip strength measurements

Power change R	Power change L	Key change R	Key change L	Patient Impression	r+I
-5	-8	-1	-1	good	dep
-8	0	-8	1	poor	ost+ost
6	1	-4	-1	fair	dep
-3	-1	-4	-1	good	ost+dep
-15	1	2	-3	useless	dep
-9	-4	1	6	good	ost+ost
2	10	0	-2	fair	dep+ost
0	4	-3	1	good	dep
-4	4	0	0	good	ost
20	4	14	7	excellent	ost
-11	0	0	-1	good	ost
0	-1	2	-1	good	ost
8	2	2	1	good	dep
-3	0	-8	-7	fair	ost
0	3	-1	0	useless	dep
-4	-4	0	-2	useless	dep
-10	-9	-5	-4	good	ost
2	0	3	0	fair	dep+ost

signifies side of injection

Subjective Patient Rating



DISCUSSION:

Osteoarthritis is frequently a global or at least a polyarticular condition. CMC arthritis is very common and may be one of the first sites that become symptomatic although it is often associated with a similar disease process in other joints.

General health questionnaires are clearly affected by co-morbidities and even if good subjective relief has been conferred locally, this may not be reflected by a general health measure.

It is surprising that there was no correlations seen with the hand and wrist questionnaire, it is a validated and reliable questionnaire although admittedly this is not specific for basal thumb disease. The questionnaire was completed separately for each side in cases of bilateral injections, and in unilateral cases it was supposed to score the injected side only. A disadvantage of this questionnaire was that some of the activities were more likely to be performed by the dominant limb, despite its design to exclude such bias, and 8 individuals had an injection in a non-dominant hand, possibly rendering the questionnaire a less accurate assessor of their outcome. Also patients seemed to be affected by general mood and other factors in their lives when contemplating their level of difficulty with daily living and functional activities as well as pain perception.

The grip measurements were carried out by a single assessor using the "best of 3" technique that has been shown to be an accurate assessment tool in the literature. Perhaps the size of the study is simply not large enough to detect differences between to groups.

This assessment is of a single injection of either treatment and the recommendations are for a course of 3 injections of Ostenil mini to obtain full benefit. Clearly it would not have been a blinded study had one group received further injections.

CONCLUSION:

Although no firm differences in outcome or statistically supported conclusions can be drawn from this study it can be seen that Ostenil mini is at least as good as Depomedrone in alleviating the symptoms of basal thumb arthritis after even a single injection and is well tolerated.

Larger numbers of patients need to be assessed to draw further conclusions.

It may be that a more specific questionnaire for basal thumb arthritis should be designed and validated for the purpose.

