Author's response to reviews

Title: Diagnosis of partial complex regional pain syndrome type 1 of the hand: retrospective study of 16 cases and literature review.

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Version: 4 Date: 21 January 2013

Author's response to reviews: see over
Author's response to reviews
Partial complex regional pain syndrome type 1 of the hand: retrospective study of 16 cases and literature review.

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Version: 3 Date: 20 January 2013

Author's response to reviews: see over (responses are in blue)
Reviewer's report

Title: Partial complex regional pain syndrome type 1 of the hand: retrospective study of 16 cases and literature review.

Version: 2 Date: 7 September 2012

Reviewer: Annemerle Beerthuizen

Reviewer's report:

Major revisions / questions:

- One of the key features of CRPS1 is that the symptoms are present in an area larger than the innervation area of 1 nerve. Can the disease described in this manuscript therefore be called 'CRPS'?

Answer:

All of our patients fulfill the Budapest criteria of CRPS. None of them had another disease (included rheumatologic or neurologic disease like focal neuropathy). Consequently, no other pathologies could explain clinical findings in those patients. We think that the partial form of the hand exists and is a rare particular form of CRPS. The aim of this study is to describe precisely this rare particular form of CRPS.

- Line 58: 'Since then, a dozen articles have been devoted to the subject'. What did these authors conclude? And why is the current study still necessary?

Answer:

In the literature, various diagnostic criteria were used and no clear diagnosis process for partial CRPS of the hand was given. Moreover, the usefulness of TBPS or radiography is not clear, and no consensus was obtained in these studies concerning number of rays involved.

The current study is necessary to precise the usefulness of the Budapest criteria in this particular form of CRPS, to propose a diagnostic process and to precise the place of radiology (standard radiography, TBPS and MRI). It’s the first study of partial form of CRPS to utilize the Budapest criteria.

We precise it in the article in the background chapter lines 64-71.

- Most CRPS1 patients are female; how do you explain the high prevalence
among men in your study population?

Answer:

This issue was precised in the methods section (lines 82-84) i.e. that our clinic is a clinic of the first Swiss accident insurer and that most of our patients are men employed in industry and building trade.; We mentioned this recruitment bias in the discussion section (lines 300-303 and 325-326)

- How did you manage to retrieve all the symptoms of the Budapest criteria from medical records, while these criteria also contain new symptoms compared to previous diagnostic criteria, for example alldynia to deep somatic pressure and/or joint movement?

Answer:

All of our data are prospectively collected since 1999 in the computerized patient's file. For CRPS the data are collected since 2002 for lower limb and 2004 for upper limb. Before the establishment of validated Budapest criteria, the French criteria were used. Clinical signs and symptoms of CRPS (except motor dysfunction) were the same before the validated Budapest criteria. For example allodynia is measured since many years with monofilaments by our occupational therapists specialized in hand rehabilitation. We precise these different issues in the methods section (lines 86-87, 91-94), and in the discussion chapter (lines 310-313, 317-320).

- In the Dutch guidelines for CRPS1 it is concluded, based on a systematic literature review performed in 2006, that there is no evidence in the literature for the use of radiography, TBPS & MRI in the diagnostics of CRPS1. Is the literature published since then convincing enough to study these diagnostic instruments? Adding these recent references to your manuscript would make the methods section more convincing.

Answer:

The reference of the Dutch guidelines was added in our manuscript (#34). We agree that, since 2006, the results of the studies on this issue are still controversial but, to our opinion, compatible with the use of TBPS only in doubtful or borderline cases. The references 26, 27, 29 et 30 are more recent than 2006 and we added 3 recent references (in 2012) for TBPS (35, 36, 37).

Paragraphs dealing with radiological examination were restructured (lines 256-268 and 294-304 were removed) and a section with recent data about TBPS was added (lines 254-276 of the discussion). The chapter on standard radiography and MRI was summarized (lines 251-253 of the discussion).

- A characteristic of CRPS is that the symptoms can fluctuate over time (for
example patients can mainly suffer from CRPS-symptoms during the evening). Could this have influenced the results concerning the treatment effect? Would a second measurement be of any value?

Answer:

We totally agree that fluctuations over time may have an impact on the results and/or treatment. The data collection was performed during a 4wk-hospitalization at entry and 2-3 days before discharge. For technical reasons, these measurements were unfortunately not performed more often. This issue was discussed on the new manuscript (lines 323-325) and we added a new reference (# 40).

- Please add the reasons for drop-outs / losses to follow-up

Answer:

We did not have drop outs in our retrospective study. We have just few missing data: 2 VAS pain, 4 DASH questionnaires and 2 VAS “patient beneficial treatment effect” at discharge.

For losses to follow up, at the last end point, we had loosed only one patient who was insured by another accident insurance and no access was obviously available to this other insurance database. This was mentioned in table 1.

- The literature group consists of a heterogenous group of patients, because of the fact that different sets of criteria were used when these patients were diagnosed. Could this have influenced the results of your study?

Answer:

We totally agree with you that diagnosis could be influenced by different sets of criteria. Two new references (#39, #40) were added and discussed (lines 310-313). We believe our results were not influenced by those of the literature because the latter were selected and only those with precise criteria were kept. Moreover, our comparisons with literature cases are limited and qualitative. We added a paragraph accordingly (lines 311-314 in the discussion section). We can assume that all the literature cases selected are CRPS (lines 316 and lines 329-331)

- The readability of the discussion section is restricted, my recommendation is to shorten and structure this section.

Answer
The discussion was modified and shortened i.e. from 1700 to 1240 words. We suppressed lines 294-301, lines 308-321, lines 322-328, lines 334-338 (37 lines)

- The weaknesses of the study are explained as follows: (Line 349 & 357):
  'retrospective and results cannot be generalised to all cases of CRPS, but same
  applies to other articles published on crps.(..). Is this explanation a valuable
  addition?

  Answer
  We agree with you and we removed this sentence (line 318). We summarized this chapter (lines 321-331).

Minor revisions:
- from paragraph 2.1 on CRPS1 is replaced by CRPS
  Ok we did it
- Line 24: describe > described
  Ok we changed it (line 28)
- Line 27: into > in
  Ok we changed it (line 31)
- Line 34: obtain > obtained
  Ok we changed it (line 38)
- Line 36: return > returned
  Ok we changed it (line 50)
- Line 37: workable > eligible
  Ok we changed it (line 41)
- Please revise line 37/38
  OK we revise these 2 lines (lines 40-43)
- Line 42: use > used
Ok we changed it (line 47)
- Line 47: key words > keywords

Ok we changed it (line 51)
- Line 73: to hospital > to the hospital

Ok we changed it for «to our hospital” (line 81)
Line 81: [18] > [18],

Ok we changed it (line 91)
- Line 81: They are calling Budapest criteria > they are called the Budapest Criteria

We changed the phrase (lines 90-91)
- Please reconsider Lines 114-117.

Ok we changed it and clarified it (lines 126-128)
- Line 132: CRPS type 2 > articles on CRPS type 2

Ok we changed it (lines 142-143)
- Line 133: ‘what does 'data in this line refer to?

Data refers to the epidemiological, clinical and radiological characteristics of our patients and literature patients (tables 1 and 2)

- Line 139: hospital > the hospital

We suppressed the word hospital (line150)
- Line 167: in 2 cases only was there > in only 2 cases there was

Ok we changed it (line 178)
- Line 175: the pain VAS > 'the pain (VAS)’ or 'the pain on a VAS'

Ok we changed it (line 185)
- Line 175: on admission > at admission

Ok we changed it (line 185)
- Line 186: regarding to > with regard to

Ok we changed it (line 195)
- Line 187: return > returned
Ok we changed it (line 196)
- Line 194: cases series > case series

Ok we changed it (line 203)
- Line 213: regarding to > regarding OR with regard to

Ok we changed it (line 222)
- Line 223: Budapest criteria > The Budapest criteria

Ok we changed it for “the so called Budapest criteria” (line 228)
- Line 227: 'in the study performed in 2010 > which study are you referring to here?

It was the validation study of The Budapest criteria. We suppressed this line and we simplified this paragraph. (Lines 226-234)

- Line 233: what do you mean by 'this'?

“This” means partial CRPS of the hand. We changed the phrase (lines 226-228)

- Line 236: Budapest criteria > the Budapest criteria

We suppressed the phrase
- Line 243: but > and?

Yes it’s better to employ AND, we changed it (line 239)
- Lines 250 - 251 > please revise and explain what criterion no 4 is

Ok we explained it (lines 245-247)
- Line 264 > after wrist fracture > after a wrist fracture

We suppressed lines 258-268
- Lines 274 - 277: please clarify

Ok we clarified and changed this section about TBPS; we added new references (lines 254-276)
- Line 290: disease > the disease

Ok we changed it (line 274)
- Line 296: with wrist fracture > with a wrist fracture

We suppressed lines 294-301.
We suppressed lines 294-301
- Line 345: of > for
We changed the phrase (line 290)
- Line 346: patient > patients
We changed the phrase (line 291)
- Line 350: excluded > exclude
Ok we changed it (line 322)
- Line 353: when disease course is > when the disease course was
The paragraph was changed (lines 323-331)
- Line 388: extracted OR extracts & analyzes
Ok we changed it (line 357)
- Line 390: participate to > participated in
This line was changed
- Line 391: approve > approved
Ok we changed it (line 362)

**Discretionary revisions:**

- The main focus of the manuscript is diagnostics; this is not mentioned in the title
of the article.
*We mentioned it in the title*

- To improve the readability, more information on the diagnostic instruments could be added (e.g. the radiological data)
*We don’t understand what you mean. The section radiology is clear and complete. We think that the chapter methods is enough important and clear*

- Line 103 (etc); evolution > course?
*We changed it (line 114)*

- Line 138: resumed > resume (or summarizes)
We changed it with summarizes (line 149)
- Line 173: incipient > acute?

We preferred the term incipient (line 183)
- Line 197: were finally used > were included

Yes we changed it (line 206)
- Line 198: The comparative sample consists of these articles

Ok we changed it (lines 207-208)
- Line 260: but in the literature group > in the literature group, however,

We changed this paragraph and we suppressed this phrase
- Line 260: patients > the patients

We changed this paragraph and we suppressed this phrase
- Line 280: two of which have used > of which two used

We changed this paragraph and we suppressed this phrase
- Line 328: treated > reported

Ok we change it (line 279)
- Line 345: and the > and neither the

We changed this paragraph
- Line 347: what do you mean by 'in touch with'?

None of our patients had an invalidity pension in relation with the CRPS. We changed it (line 291)
- Line 367: of the disease course > after trauma?

Yes we precised it (line 337-338)
- What do you mean by line 368?

We mean standards radiography and MRI are only useful for differential diagnosis and not for the diagnosis of CRPS. We precised it in the discussion line 251-253,
- Line 369: is > should be?

We suppressed this phrase
- Line 394: for > for help for the tables > for her help with the tables

Ok we changed it (line 364)
Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Needs some language corrections before being Published

We improved the English

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

I declare that I have no competing interests
Author's response to reviews
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Version: 3 Date: 20 January 2013

Author's response to reviews: see over (responses in blue)
Reviewer's report
Title: Partial complex regional pain syndrome type 1 of the hand: retrospective study of 16 cases and literature review.
Version: 2 Date: 9 November 2012
Reviewer: Christoph Maier
Reviewer's report:

Conclusion
This is a very valuable report clinically, because the diagnosis of CRPS is often a challenge. The so-called Budapest criteria are sometimes not sufficiently helpful, for example, because they ignore the radiologic techniques entirely. For decades the distal generalization of all symptoms has been a relevant clinical characteristic. However, there are some patients with only a few affected fingers. Therefore, the presented report is very important for the current discussion about the relevance of Scintigraphy and till now there are no comparable preliminary studies. The argumentation of the authors is persuasive.

Minor revision
However, the article could clearly (20%) be shortened because too many explanations (e.g. sensitivity and specificity) which could be deleted.

We agree with you, the discussion was modified and shortened from 1700 words to 1240 words. We suppressed lines 294-301, lines 308-321, lines 322-328, lines 334-338 of the old manuscript (37 lines).

We modified the TBPS section and shortened standard radiography and MRI section. We modified the last part of discussion (lines 295-331) integrating the commentaries of the first reviewer.

7 references were added to the bibliography section

Level of interest: An article of importance in its field
Quality of written English: Needs some language corrections before being published
We improved the English
Statistical review: Yes, and I have assessed the statistics in my report.
Declaration of competing interests: I declare that I have no competing interests