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Complex regional pain syndrome medicalises limb pain

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Re: Complex regional pain syndrome medicalises limb pain

4 June 2014

With colleagues, we have set up CRPS Network UK to improve clinical care and promote research into this condition. Our members have been involved in developing recent evidence based national guidelines. We are disappointed that Bass writes a provocative but poorly argued case that CRPS is over diagnosed and has psychological stress as the main trigger and thus is a 'medicalised' phenomena[[i](#)]. We would argue that the evidence points in the other direction, and it is sad that Bass has ignored much of the peer reviewed literature that supports the construct as a distinct clinical phenomena and fails to recognise significant scientific and clinical advances.

Firstly he claims, without evidence, that junior doctors are diagnosing this condition without support of senior doctors. A brief survey of Pain Clinic services in the South West region reveals they are wholly consultant led and readily accept urgent referrals of suspected CRPS. In our clinical experience and supported by data from the CRPS UK Register, it is far more likely that CRPS is under diagnosed, under treated and clinicians advise inappropriate coping strategies (i.e. immobilisation) due lack of knowledge of the condition throughout all levels of the health service[[ii](#)] [[iii](#)].

Whilst the exact sequence of events determining the aetiology is unclear there is a huge amount known about the aberrant systems in CRPS Type 1 - cytokines, oxidative stress, vascular flow, neurogenic inflammation, markers of bone metabolism and significant peripheral and central nervous system abnormalities, none of which have been shown to be related to psychological distress - despite many researchers confident they would find a link. Much of this work has demonstrated differences between CRPS and injury / fracture, refuting the notion that the construct is just a little more than reaction to injury[[iv](#)] [[v](#)]. Animal models demonstrate similar pathological patterns to human CRPS - again differentiating CRPS from a 'normal' response to injury[[vi](#)] [[vii](#)] and CRPS serum-IgG, when transferred to mice elicits abnormal behaviour consistent with that seen in animal models of CRPS[[viii](#)]. Some - but importantly not all - of the signs and symptoms of CRPS such as swelling and sensory phenomena can be seen following immobilisation. This is not evidence that the condition is merely due to immobilisation, but provides insight into some of the neurological mechanisms. It also confirms clinicians' observations that an active rehabilitation approach discourages the development of the syndrome, but even with

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this some people continue to have rapidly progressing CRPS.

The diagnostic criteria have been developed and modified until we have an internationally agreed set, combining both symptoms and signs. The 'Budapest Criteria' have excellent sensitivity (0.99), and greatly improved specificity (0.68). The use of these criteria will reduce the possibility of false diagnosis^[ix].

Bass cites evidence of psychosocial factors influencing outcome in chronic painful conditions such as CRPS. We do not doubt this and would expand this hypothesis that the outcome in more tangible conditions such as rheumatoid arthritis, stroke and malignancy are modified by such factors. He also claims "key psychological factors are ignored". However, studies in both primary and secondary care have not found evidence that CRPS is associated with psychological distress^[x] ^[xi]. A well controlled primary care study that examined 4 control cases for every CRPS case could not demonstrate an association with other pain syndromes or a pre-morbid psychological state before the development of CRPS^[xii].

Bass then argues that the issue is that the diagnostic label is causing considerable disability. We can find no evidence for this. Our experience is that the diagnosis allows patients to make sense of distressing and often bizarre symptoms^[xiii] and helps clinicians to develop active treatment programmes promoting functional restoration. Conversely, exactly the type of scepticism purported by Bass around the validity of their condition, greatly increases patients' distress and leads to delayed diagnosis and access to appropriate rehabilitation. The invaluable multi-collegiate national guidelines published by the Royal College of Physicians in 2012 advocate active rehabilitation and do not recommend adoption of the sick role and disempowerment as claimed by Bass - they call for quite the opposite^[xiv].

We agree that there is indeed a lack of psychological and psychiatric services for patients with severe chronic pain in the UK, but such deficiencies need addressing without dreaming up an alternative model for the aetiology, diagnosis and treatment of CRPS - without the evidence to support it! The huge amount of evidence and fascinating science supporting the existence of this syndrome has encouraged its recognition and early appropriate management - we don't need a step back towards attributing symptoms and signs of this condition to psychosocial factors as advocated by Bass.

^[i] *BMJ* 2014;348:g2631

^[ii] Allen G, Galer BS, Schwartz L. Epidemiology of complex regional pain syndrome: a retrospective chart review of 134 patients. *Pain*. 1999;80(3):539-44.

^[iii] Shenker NG, Goebel A, Rockett M, Batchelor J, Jones G, Parker RA, Williams ACdeC, McCabe C. The prognosis for patients with chronic Complex Regional Pain Syndrome: the value of the CRPS-UK Registry. *British Journal of Pain In Press*

^[iv] Parkitny L, McAuley JH, Di Pietro F, Stanton TR, O'Connell NE, Marinus J, van Hilten JJ, Moseley GL. *Neurology*. Jan 1, 2013; 80(1): 106-117. Inflammation in complex regional pain syndrome. A systematic review and meta-analysis.

^[v] Marinus J1, Moseley GL, Birklein F, Baron R, Maihöfner C, Kingery WS, van Hilten JJ. Clinical features and pathophysiology of complex regional pain syndrome. *Lancet Neurol*. 2011 Jul;10(7):637-48.

^[vi] Bennett GJ. A hypothesis for the cause of complex regional pain syndrome-type I (reflex sympathetic dystrophy): pain due to deep-tissue microvascular pathology. *Pain Med*. 2010 Aug;11(8):1224-38.

^[vii] TZ, Offley SC, Boyd EA, Jacobs CR, Kingery WS. Substance P signaling contributes to the vascular and nociceptive abnormalities observed in a tibial fracture rat model of complex regional pain syndrome type I. *Pain*. 2004;108(1-2):95-107.

^[viii] Goebel A1, Leite MI, Yang L, Deacon R, Cendan CM, Fox-Lewis A, Vincent A. The passive transfer of immunoglobulin G serum antibodies from patients with longstanding Complex Regional Pain Syndrome. *Eur J Pain*. 2011 May;15(5):504.

^[ix] Harden RN1, Bruehl S, Perez RS, Birklein F, Marinus J, Maihöfner C, Lubenow T, Buvanendran A, Mackey S, Graciosa J, Mogilevski M, Ramsden C, Chont M, Vatine JJ. Validation of proposed diagnostic criteria (the "Budapest Criteria") for Complex Regional Pain Syndrome. 2010;150(2):268-74.

^[x] Beerhuizen A, Stronks DL, Huygen FJ, Passchier J, Klein J, Spijker AV. The



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association between psychological factors and the development of complex regional pain syndrome type 1 (CRPS1)—a prospective multicentre study. *Eur J Pain* 2011;15:971-5.

[xi]Beerhuizen A, van 't Spijker A, Huygen FJ, Klein J, de Wit R. Is there an association between psychological factors and the Complex Regional Pain Syndrome type 1 (CRPS1) in adults? A systematic review. *Pain*. 2009 Sep;145(1-2):52-9.

[xii]de Mos M1, Huygen FJ, Dieleman JP, Koopman JS, Stricker BH, Sturkenboom MC. Medical history and the onset of complex regional pain syndrome (CRPS). *Pain*. 2008 Oct 15;139(2):458-66.

[xiii]Lewis JS, Kersten P, McCabe CS, McPherson KM, Blake DR. Body perception disturbance: a contribution to pain in complex regional pain syndrome (CRPS). *Pain*. 2007;133(1-3):111-9.

[xiv] Goebel A, Barker CH, Turner-Stokes L et al . Complex regional pain syndrome in adults: UK guidelines for diagnosis, referral and management in primary and secondary care. London: RCP, 2012.

Competing interests: None declared

Psychological factors in Complex Regional Pain Syndrome

4 June 2014

Sir,

This letter is in response to the personal viewpoint article "*Complex regional pain syndrome medicalises limb pain*"¹.

Whilst it is to be welcomed that Bass highlights the need for greater psychological input to NHS pain clinics, and the frequent role of psychological factors in the maintenance of chronic pain conditions such as complex regional pain syndrome (CRPS), we are concerned that the article appears to suggest that i) the causation of CRPS is largely within the psychological domain; and moreover that ii) somehow the condition could be minimised or averted if only it could be re-framed in a manner that demedicalised the problem – Bass states "there is a case for abandoning the term CRPS altogether because of its potential for iatrogenic harm" – and indeed he suggests we consider alternative descriptive terms such as "armache or legache".

There is now abundant evidence to implicate autoimmune and oxidative stress processes within the causation of a significant number of CRPS cases²⁻⁴ and although not fully understood, it now looks very likely that any consideration of the aetiology of CRPS must largely focus upon neurophysiological and neurochemical pain processing pathways within a complex multifactorial context that also includes genetic and environmental factors. Furthermore, magnetic resonance imaging demonstrates structural abnormalities of connectivity between brain structures in CRPS – measures that are separable⁵ from those in other chronic pain conditions such as chronic back pain and fibromyalgia. Clearly the position that CRPS arises because of pre-accident psychological factors or post-accident factors such as the pursuit of litigation are not in concordance with a growing body of evidence relating to the neuropathological aetiology of the condition. As the UK guidelines on CRPS puts it lucidly, "It is also now clear that CRPS is *not* associated with a history of pain-preceding psychological problems, or with somatisation or malingering"⁶. Prospective studies also dismiss any such psychological factors in the genesis of CRPS⁷.

Nonetheless, psychological factors are of considerable importance in the management of CRPS, as with other chronic pain conditions, and the development of distress, helplessness and depression, in addition to dysfunctional pain beliefs and behaviours (for example the belief that the pain is harmful and that avoiding activity will help the recovery, and behaviours of guarding and avoidance of movement) are "Yellow Flags" associated with chronicity in acute back pain⁸ and which are equally applicable to outcome in CRPS⁶. Authors of this letter include a psychiatrist and pain medicine clinician practicing within an NHS pain clinic, in cases where we encounter patients with CRPS in whom significant levels of disability have developed, psychiatric enquiry often reveals the onset of enhanced levels of disability to be chronologically associated with the onset or worsening of depression or some other form of psychological distress such as symptoms of post-traumatic stress disorder (PTSD). In such cases, appropriate treatment of these psychological exacerbating and maintaining factors is hugely important as part of a multi-disciplinary approach to treating the CRPS⁹.

However, recognition of the underlying CRPS is vital and informs the provision of specialist treatments by Pain Medicine colleagues (in the form of specialist rehabilitation programmes and pharmacological and neuromodulatory interventions where appropriate). To replace the CRPS diagnosis with a descriptive term such as "disproportionate pain" or "armache" would be a retrograde step, obfuscating that which has been clearly demarcated and elucidated through clinical and basic research.

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Equally, one cannot ignore the serious impact that Bass' proposed changes could have upon the assessment of chronic pain conditions in the courts. Over the years, great strides have been made by the legal profession in recognising the validity of diagnoses in Pain Medicine. This has been reflected by the introduction of a separate section relating to Chronic Pain Disorders, including CRPS, within the 11th and 12th edition Judicial College Guidelines for the Assessment of General Damages in Personal Injury Cases. Judicial findings of CRPS are now commonplace, based on tested expert medical opinion, leading to financial awards that are commensurate with what is often a significant level of disability. Declassifying CRPS would have the potential to undermine the now generally accepted proposition that pain disorders should *not* be viewed through a prism of psychiatric injury or damage alone and therefore deny those suffering from CRPS a fair level of compensation. This would be a matter of some concern amongst those representing injured parties.

Finally, whilst psychological treatments are an essential part of the toolkit in treating CRPS and psychological processes are often key to understanding the perpetuation of chronic presentations, neuropathology and pain mechanisms not psychology are at the heart of causation of CRPS and psychological treatments cannot replace the specialist Pain Medicine rehabilitative, pharmacological and interventional treatments that CRPS patients often require. To put it another way – *just because one of the tools we need is a hammer, doesn't mean that the problem must be a nail.*

References:

1. Bass C. Complex regional pain syndrome medicalises limb pain. *BMJ* 2014;**348**:g2631.
2. Goebel A, Blaes F. Complex regional pain syndrome, prototype of a novel kind of autoimmune disease. *Autoimmunity reviews* 2013;**12**(6):682-6.
3. Tekus V, Hajna Z, Borbely E, et al. A CRPS-IgG-transfer-trauma model reproducing inflammatory and positive sensory signs associated with complex regional pain syndrome. *Pain* 2014;**155**(2):299-308.
4. Taha R, Blaise GA. Update on the pathogenesis of complex regional pain syndrome: role of oxidative stress. *Canadian journal of anaesthesia = Journal canadien d'anesthésie* 2012;**59**(9):875-81.
5. Geha PY, Baliki MN, Harden RN, et al. The brain in chronic CRPS pain: abnormal gray-white matter interactions in emotional and autonomic regions. *Neuron* 2008;**60**(4):570-81.
6. Royal College of Physicians. Complex regional pain syndrome in adults: UK guidelines for diagnosis, referral and management in primary and secondary care. Royal College of Physicians: London, 2012.
7. Beerthuis A, Stronks DL, Huygen FJ, et al. The association between psychological factors and the development of complex regional pain syndrome type 1 (CRPS1)--a prospective multicenter study. *Eur J Pain* 2011;**15**(9):971-5.
8. Main CJ, Williams ACC. Musculoskeletal pain. In: Mayou R, Sharpe M, Carson A, eds. *ABC of Psychological Medicine*. London: BMJ Publishing Group, 2003:37-40.
9. Harden RN. Complex regional pain syndrome. *British Journal of Anaesthesia* 2001;**87**(1):99-106.

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Competing interests: None declared

Re: Complex regional pain syndrome medicalises limb pain

4 June 2014

Sir,

We have read with interest the recent Personal View by Dr. Chris Bass on Complex Regional Pain Syndrome¹.

For clarification, Complex Regional Pain Syndrome (CRPS) is an uncommon disorder affecting limbs, which in over 90% of cases arises after trauma. Comprehensive

Andreas Goebel,
Consultant and Senior
Lecturer in Pain
Medicine
William Campbell,
Beverly Collett, Martin

reviews on CRPS have been published 2 3, and the UK Royal College of Physicians has supported the development of the UK Guidance, which was recently published with the support of over 20 UK professional organisations and Royal Colleges, including the British Psychological Society 4 5. A guidance chapter for the diagnosis and management of CRPS in psychiatric practice is currently being written by a multidisciplinary group, which includes representation from the Royal College of Psychiatrists; this will be available with the first revision of the UK CRPS Guidance in 2015. Dutch and US guidance is also available.

Johnson, Kate Grady
The Walton Centre NHS
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Dr. Bass makes four propositions (a-d), which need to be refuted, and additional suggestions (e-f), which should be addressed:

- a) Dr. Bass asserts that CRPS can be diagnosed on the basis of sensory and motor signs. This is incorrect – the Budapest diagnostic criteria require the presence of additional symptoms. A synopsis of the CRPS diagnostic criteria can be found in appendix 4 of the referenced 'long' UK Guidance.
- b) Dr. Bass indicates that CRPS, when diagnosed in GP practice should best be managed first by identifying possible yellow flags, then arranging referral for an (unspecified) 'appropriate intervention'. This proposed management strategy conflicts with the Royal College of Physicians guidance for the management of CRPS in GP practice, which has been supported by the RCGP. The latter guidance proposes that GPs refer patients to Pain Medicine Specialists or (for complex multiple disabilities) to Rehabilitation Specialists (except in mild cases). Specific treatments and expertise are then available through these services.
- c) '...abundant evidence shows that it is psychosocial, not biological factors, that are associated with a higher likelihood of developing chronic painful disorders...' Here Dr. Bass abandons the discussion on CRPS altogether for a more general discussion on chronic pain. In CRPS research, the pre-existence of major psychological factors has now been soundly refuted⁶. Dr. Bass would do well to acknowledge such population-based research. In these same studies CRPS was associated with ACE inhibitor intake (but not with intake of other anti-hypertensives) ⁷, and asthma (but not COPD) ⁶, highlighting a likely contribution from neurogenic inflammation, which had earlier already been suggested in microdialysis studies ⁸. The prospective (but not population-based) study of patients after limb fracture by Berthuitzen et al., which Dr. Bass cites, again found no correlation between psychological factors and the development of CRPS; in contrast biological factors such as intra-articular fractures and fracture dislocations were correlated ⁹. Further research is indeed called for to assess the impact of psychological factors on variability after trauma, but until the results of such research are available, they should not be pre-empted.
- d) Dr. Bass calls for appropriate education and training for clinicians working in pain clinics. We could not agree more. Dr. Bass should feel reassured by the rigorous training and examination programme which Pain Medicine Consultants now undertake to achieve the professional qualification of Fellowship of the Faculty of Pain Medicine of the Royal College of Anaesthetists (FFPMRCA). It is disappointing that this has not been acknowledged.
- e) Dr. Bass calls for adequate psychological services in pain clinics. Such a call is in keeping with a modern understanding of Pain Medicine, and should be applauded (see <http://www.britishpainsociety.org> for details on UK initiatives to secure multidisciplinary provision of pain services). The primary goal is to treat patients in their biopsychosocial contexts. It is not to elucidate psychological causative factors (with selected exceptions where the input of psychiatrists is indeed important). The idea, that we should generally look for non-biological causative factors for CRPS in order to then help the patient by treating their psychology has been largely discredited ⁹⁻¹¹, and has the potential to cause harm by suggesting their condition is psychological/psychiatric, when this is not the case.
- f) We believe that Dr. Bass is right to point out the potential for causing iatrogenic damage by making an inappropriate diagnosis, which he says he has many times witnessed. We too have seen inappropriate diagnoses of CRPS, although these are normally relatively easily recognised and refuted by appropriately trained professionals. Of note, in medico-legal practice, the diagnosis of CRPS poses particular challenges, but a discussion around the judicial system is beyond the scope of this letter.

In summary, whilst we are mindful that this is a 'personal view', the viewpoint of Dr Bass leaves us somewhat underwhelmed as it lacks medical and diagnostic accuracy and makes only partial reference to the available literature. We are concerned that BMJ readers may have been misinformed or misguided. Full information and guidance on the management of CRPS are detailed in the UK CRPS Guidelines [6].

Dr. Andreas Goebel, Chair UK CRPS Guideline Group
Dr. William Campbell, President British Pain Society
Dr. Beverly Collett, Chair Chronic Pain Policy Commission
Dr. Martin Johnson, RCGP Lead for Chronic Pain
Dr. Kate Grady, Dean Faculty of Pain Medicine Royal College of Anaesthetists

Bibliography

1. Bass C. Complex regional pain syndrome medicalises limb pain. *BMJ* 2014;348:g2631.
2. Marinus J, Moseley GL, Birklein F, Baron R, Maihofner C, Kingery WS, et al. Clinical features and pathophysiology of complex regional pain syndrome. *Lancet Neurol.* 2011;7;10(7):637-48.
3. Goebel A. Complex regional pain syndrome in adults. *Rheumatology (Oxford)* 2011;10;50(10):1739-50.
4. Turner-Stokes L, Goebel A. Complex regional pain syndrome in adults: concise guidance. *Clin Med* 2011;11(6):596-600.
5. Goebel AB, Ch; Turner-Stokes, L; et al. Complex Regional Pain Syndrome in Adults. UK guidelines for diagnosis, referral and management in primary and secondary care. London: Royal College of Physicians, 2012.
6. de Mos M, Huygen FJ, Dieleman JP, Koopman JS, Stricker BH, Sturkenboom MC. Medical history and the onset of complex regional pain syndrome (CRPS). *Pain* 2008;139(2):458-66.
7. de MM, Huygen FJ, Stricker BH, Dieleman JP, Sturkenboom MC. The association between ACE inhibitors and the complex regional pain syndrome: Suggestions for a neuro-inflammatory pathogenesis of CRPS. *Pain* 2009/4;142(3):218-24.
8. Birklein F, Schmelz M, Schifter S, Weber M. The important role of neuropeptides in complex regional pain syndrome. *Neurology* 2001/12/26;57(12):2179-84.
9. Beerthuizen A, van 't SA, Huygen FJ, Klein J, de WR. Is there an association between psychological factors and the Complex Regional Pain Syndrome type 1 (CRPS1) in adults? A systematic review. *Pain* 2009/9;145(1-2):52-59.
10. Lohnberg JA, Altmair EM. A review of psychosocial factors in complex regional pain syndrome. *Journal of clinical psychology in medical settings* 2013;20(2):247-54.
11. Feliu MH, Edwards CL. Psychologic factors in the development of complex regional pain syndrome: history, myth, and evidence. *Clin J Pain* 2010;26(3):258-63.

Competing interests: None declared

Re: Complex regional pain syndrome medicalises limb pain
3 June 2014

It is unfortunate that the excellent points by Bass will be lost in the debate over his call for the abandonment of the term CRPS type 1. He is not alone in making this call (1). CRPS is a condition with uncertain aetiology, no diagnostic test and multiple therapies with limited evidence. It exists and causes morbidity (2). CRPS type 2 (with nerve injury), with almost identical clinical features, was not mentioned. Any distressing health problem is likely to be medicalised. Iatrogenic harm does exist and is related to the over diagnosis of CRPS (often in the medicolegal context). Using it as a diagnosis of last resort, usually in distressed patients, is lazy medicine. The Budapest criteria are an advance in the diagnosis of CRPS type 1, but they should not be applied with blind faith. They reflect the consensus of a group of experts. Other diagnostic criteria exist and inter observer reliability between all criteria is poor (3). The quoted sensitivity and specificity values of the Budapest criteria should be questioned as they are validated on small populations, rather than against a gold standard. Work has shown that different criteria may apply to Japanese patients (4) and a new diagnostic subset of CRPS has also been proposed (5). Increased psychiatric involvement in pain services is pertinent. Somatisation disorder is also controversial and badly diagnosed. Abandoning the term CRPS type 1 is a retrograde step, tightening the diagnosis is not.

1. Del Pinal, F. "Editorial: I have a dream... reflex sympathetic dystrophy (RSD or Complex Regional Pain Syndrome-CRPS I) does not exist." *Journal of Hand Surgery (European Volume)* 38.6 (2013): 595-597.
2. van Velzen GA, Perez RS, van Gestel MA, Huygen FJ, van Kleef M, van Eljls F, Dahan A, van Hilten JJ, Marinus J. "Health-related quality of life in 975 patients with complex regional pain syndrome type 1." *Pain* 155(2014):629-635.
3. Perez RS, Burm PE, Zuurmond WW, Giezeman MJ, van Dasselar NT, Vranken J, de Lange JJ. "Interrater reliability of diagnosing complex regional pain syndrome type 1." *Acta anaesthesiologica scandinavica* 46.4 (2002): 447-450.
4. Sumitani M, Shibata M, Sakaue G, Mashimo T. "Development of comprehensive diagnostic criteria for complex regional pain syndrome in the Japanese population." *Pain* 150.2 (2010): 243-249.
5. Żyluk, Puchalski P. "Complex regional pain syndrome: observations on diagnosis, treatment and definition of a new subgroup." *Journal of Hand Surgery (European Volume)* 38.6 (2013): 599-606.

Competing interests: None declared

Re: Complex regional pain syndrome medicalises limb pain
2 June 2014

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Prioritising psychosocial over biomedical factors at diagnosis of type 1 CRPS - and conflating CRPS with other causes of chronic pain by adopting yet another, even vaguer label - infers that CRPS is a psychosomatic condition, and would lead medical thinking away from finding the cause(s) of this very real condition.

To avoid confusion, diagnosis of CRPS really should be restricted to patients who have the clearly-described signs, including trophic and/or vascular/sudomotor/proprioceptive sympathetic regulatory changes in the affected limb.

The seemingly large increase in CRPS may suggest that it is becoming a fashionable diagnosis, which fulfils our need to diagnose, but which rests on criteria inadequately specific or too loosely applied to ensure the coherence of the CRPS diagnosis.

To infer that patients with CRPS who express wishes to have limbs amputated or to end their lives are driven by catastrophic thinking is itself evidence of iatrogenic harm by disbelief - the pain really is that bad and it may drive extreme responses in otherwise well-balanced individuals.

My own experience of discal neck injury at 28yoa, followed by progressive deterioration over twelve years with multi-level radiculopathies, was painful. But it bears no comparison to the "high-emotive descriptors" pain of CRPS I experienced for about a year 2002-3.

The ascribing, in my case, of the cause as being a distortion of the sympathetic trunk by jammed/subluxed upper rib heads, facilitated a cure by one (among many I tried) highly skilled mechanical medical osteopath.

There is a substantial cohort of patients who develop upper limb CRPS after shoulder injuries; it is my opinion that sympathetic trunk distortion by rib-heads (difficult to measure by nerve conduction studies) may underlie the explanation in some such cases. Physical and potentially curable.

It was this experience which led to my recovery and my subsequent training as a medical osteopath (my MRI still shows multilevel radicular compression and bulging disc osteophytes with cord impressions). Mechanical osteopathy has proved extremely useful to me in general practice, treating - and quite often curing - patients with many presentations of chronic spinal and limb pains, including a few with features of CRPS. Most have already done the rounds of medical and Pain Clinic specialities without benefit.

There are those who believe that back pain is a psychosocial construct and that osteopathy is witchcraft, despite strong evidence to the contrary. I know my narrative counts for little in evidence-based Medicine, but it is real.

A substantial proportion of chronic pain is musculoskeletal in origin and may potentially be remediable by use of a mechanical model for diagnosis and treatment. We lack such training as doctors. The demedicalisation of back pain hitherto has not led to any reduction in the consequent burden on patients, doctors, industry or the State.

Demedicalising CRPS and using homogeneous, over-arching terms risks distracting us from looking for proper answers on behalf of individuals with - if correctly identified - different presenting conditions.

Competing interests: None declared

Re: Complex regional pain syndrome medicalises limb pain

Nick Mann, GP and Osteopath
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Dr. Christopher Bass describes the use of the name Complex Regional Pain Syndrome (CRPS) as a medicalisation of limb pain and by this description and the rest of the article he infers that CRPS is not a disease. 1 Dr. Bass may be right, but if we accept his argument we may demedicalise many more psychiatric and neurological conditions such as depression, schizophrenia, autism, migraine and many more that share with CRPS the fact that their diagnoses depend on clinical criteria. This response to Dr. Bass is not meant to defend CRPS's right to be recognised as a disease, but to consider the right of patients to have an explanation for their symptoms, which are agonising, painful and often dismissed as a non-entity.

Dr. Bass argues that if CRPS label is given, it legitimises sick role. Although, some patients may behave that way, it is also recognised that many more patients and their relatives take the opposite attitude of "if that is the disease, what is the treatment?" and start looking for a solution rather than blaming all their ills on the label.

CRPS is a clinical disorder characterised by objective autonomic and sometimes neurologic signs as well as a subjective reporting of pain. The fact that the autonomic features can be reproduced in a laboratory environment by immobilisation after injury does not necessarily discredit CRPS from its independent characteristics.

2 June 2014

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Immobilisation after injury is likely to be merely a risk factor that triggers the "disease" in predisposed individuals in the same way that exposure to pollens trigger asthma in an individual predisposed to asthma and photic stimulation triggers a seizure in people with photosensitive epilepsy. In considering the above, it is reasonable to ask: why do some patients have continuing pain "disproportionate" to the inciting event while others don't? The answer is likely to be because most of us are not genetically predisposed or otherwise to CRPS in the same way as the majority of us are not predisposed to asthma or epilepsy.

Dr. Bass accepts that some patients are at risk of developing chronic pain including CRPS and calls for primary care doctors "to use an instrument that has the capacity to predict pain problems that are complicated, using so called yellow flags". In this statement Dr. Bass agrees that some patients have higher predisposition to chronic pain or CRPS than others, but does not seem to accept that this predisposition could be biologic in origin with the biopsychosocial model in its manifestation.

Dr. Bass also misses the point that changing the name of a condition does not change its clinical presence. His suggestion of renaming CRPS (previously known as reflex sympathetic dystrophy) as "legache" or "armache" may be attractive to some, but is unlikely to make the pain "proportionate" to the inciting event or change the treatment options offered by doctors. History shows that changing the name of myalgic encephalomyelitis (ME) to chronic fatigue syndrome did not reduce the incidence of the condition or its impact on patients' quality of life, but may have changed our understanding of its biologic origin or lack of it.

We agree with Dr. Bass in his final comment that clinical psychologists play an important role in the biopsychosocial model of CRPS management and more psychologists with expertise in managing pain are needed.

References:

1. Bass C, Complex regional pain syndrome medicalises limb pain, BMJ, 2014;384:g2631

Competing interests: None declared

CRPS: an abused diagnosis

2 June 2014

It's extraordinary that it has taken a psychiatrist to question the increasing tendency of the largely surgical community to diagnose 'chronic regional pain syndrome'. Dr Christopher Bass has done us an immense service by his observations.

Throughout a career including dealing with second opinion referrals as a hand surgeon and in my expert witness work of assessing upper limb trauma, it has also become clear to me that CRPS is increasingly a 'dustbin' diagnosis. It is often arrived at when inadequate clinical acumen has failed to adequately explore underlying reasons for persistent pain. Examples include sub-acute carpal tunnel syndrome arising after wrist trauma and unidentified bone necrosis after complex fractures. Dr Bass is perfectly correct that once a diagnosis of CRPS is made in the face of an unidentified underlying organic lesion, chronic disability immediately becomes an almost irremovable issue. Moreover, once spinal arcs become established from untreated organic pain sources, even appropriate late treatment may fail to cure the symptom.

In my view the increasing tendency to diagnose CRPS, as identified by Dr Bass, is due to two factors.....first, poorer clinical exposure & training prior to consultancy and second, massively increased pressures in daily clinical life leading to briefer consultations and the need to discharge patients from care. This may appear to save money for the NHS in the short term but the net costs to society of the long term disability of an incorrect diagnosis of CRPS are infinitely greater.

Competing interests: None declared

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Re: Complex regional pain syndrome medicalises limb pain

2 May 2014

It was with great interest that I read Dr. Bass's viewpoint in BMJ. I am a physiotherapist who is a Clinical Specialist in Pain Sciences working in Canada and long have been frustrated by the impact of clinician language and behaviour on many rehabilitation diagnoses. I have 23 years working with pain patients and 5 to 6 years working with Complex Regional Pain Patients as a critical mass. I too have felt at times labels can be harmful for patients receiving adequate comprehensive care. Unlike Dr Bass however, I find the label chronic pain or non-specific pain can be just as harmful as patients are frequently told, "there is nothing I can do" or "get over it". Both responses are inappropriate but aid to highlight that changing the label does not change the problem that Dr. Bass is trying to address. Non-specific pain does not immediately lead to proper assessment and treatment of psychosocial flags.

He is correct that there is some cause for criticism of the Budapest Criteria and those involved in the world of research of complex regional pain are striving to improve

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upon these. However, The Budapest Criteria do have a specificity of 0.68 and a sensitivity of 0.99. In the world of clinical diagnostic testing, there are certainly worst tests for sensitivity and specificity. Continuing pain, which is disproportionate to the inciting event, is not the sole diagnostic criteria but rather they must report both one symptom in three or more categories and one sign in two or more categories at the time of the assessment. 1

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The studies he alluded to re brief immobilisation and prolonged casting of a limb producing signs and symptoms mimicking CRPS drew no definitive conclusions re causation or potential future treatment. 2,3 Rather they were an insight as to where researchers may want to direct their efforts further. It is far too early in the game to be taking two studies and drawing conclusions re causation when the neurophysiology and immunology behind CRPS is complex and still being determined.

CRPS can cause profound disability in some but not all patients. The reference he used to support psychosocial factors being a potential causative factor is for general chronic pain.

Beerthuis et al, 2011 actually did not find psychosocial factors pre-disposed individuals to CRPS. 4 This also is only one study and as such too early to make a judgment.

There are some distinct differences in those with chronic pain versus those with CRPS and the literature should not be intertwined. One of the main principles of applying best practice principles to a population is the literature has to match the context of the population. 5 Patients with chronic low back pain do not get spontaneous swelling, cooling or heating of a body area, loss of motor initiation, trophic changes, extensive loss of sensation etc.... the two groups cannot be compared. In addition, there is a subgroup of CRPS that have pain but the biggest disabling features are the temperature changes, trophic changes and swelling, not pain. As such, the term arm ache or leg ache or non-specific arm pain does not describe the population well at all. In addition, there are treatment techniques such as graded motor imagery that have some clinical level of success for CRPS but are not so useful for chronic non-specific low back and neck pain. 6 Lumping all pain diagnoses together will limit the usefulness of matching treatments that have positive effects on the subgroups where they are successful.

I agree screening for psychosocial factors is necessary to manage any condition, not just pain conditions. The tools he mentions are good ones for depression and pain and easy to use by all clinicians in busy practices. I would add screening for sleep dysfunction as this too has a large impact on healing and pain control. Screening for depression, anxiety and sleep dysfunction was recommended by Rakesh, 2012 at the International Association for the Study of Pain Congress in Milan based on published literature. 7,8

Dr Bass makes a good point in his title that CRPS should not be medicalised. However, this holds true for any condition in medicine from pain to cardiac issues. The key to health in any domain is self-reflection and self-management with occasional interventional procedures from physicians or allied health professionals. True health is a work in progress and takes time. If we add medicalization and the usual resultant fear to any diagnosis, we disempower patients from managing their own care. Iatrogenic harm happens in all medical diagnostic groups not just pain patients. We, the entire medical community, do not cure patients. We teach them to manage the changes that aging, trauma and exposure to illnesses cause. The problem Dr. Bass wants to tackle is not the label we put on our patients but rather the lack of evidenced based knowledge of health professionals and ability at identification of psychosocial flags early on (optimally before CRPS even occurs by their general practitioner) and management of these flags. We must practice holistically not just in our areas of specialization. We also must start and continue to train incoming practitioners about the power of language, excessive diagnostic procedures and the need to be truly present with all diagnostic groups of patients. We need to let patients tell their narrative so that belief systems/fears etc... can be expressed and addressed immediately in every day non-threatening language. No one is too busy for this as we spend the time later down the line managing beliefs once they are ingrained. We also need to teach our clinicians about knowledge translation to patients, styles of learning, readiness to change and barriers to learning. Without practicing with all these tools in place we cannot demedicalise any diagnosis nor empower our patients to manage it. Changing the label only pushes the problem to a new label.

1. Harden, R. N., Bruehl, S., Perez, R. S., Birklein, F., Marinus, J., Maihofner, C., Lubenow, T., Buvanendran, A., Mackey, S., Graciosa, J., Moqilevski, M., Ramsden, C., Chont, M., Vatine, J. (2010). Validation of proposed diagnostic criteria (the "Budapest Criteria") for complex regional pain syndrome. *Pain*, Aug 150, 268-274. doi:10.1016/j.pain.2010.04.030

2. Schott Gd. Complex?Regional?Pain ?Syndrome? *Pract Neurol* 2007;7:145-57

3. Singh HP, Davis TR. The effects of short-term dependency and immobility on skin temperature and colour in the hand. *J Hand Surg Br* 2006;31:611-5

4. Beerthuiszn A, Stronks DL, Huygen FJ et al. The association between psychological factors and the development of complex regional pain syndrome type 1 – a prospective multicenter study. *Eur J Pain* 2011; 15:971-5
5. Dartnell J, Hemming M, Collier J, Ollenschlaeger G. Putting evidence into context: some advice for guideline writers. *Evid Based Nurs* 2008; 11:6-8
doi:10.1136ebn.11.1.6
- 6.. Moseley GL: Graded motor imagery is effective for long-standing complex regional pain syndrome. *Pain* 108:192-198.
7. Gupta A, Silman AJ, Ray D, Morriss R, et al. (2007). The role of psychosocial factors in predicting the onset of chronic widespread pain: results from a prospective population-based study. *Rheumatology* 46(4):666-71.
8. Meyer-rosberg K, Kvarnstrom A, Kinnman E, Gordh T, Nordfors L-O, Kristofferson A. Peripheral neuropathic pain – a multidimensional burden for patients. *EJP* 5(4):379-89 doi:10.1053/eujp.2001.0259

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