

Supplementary material to article by F. Brunner et al. "Poor prognostic factors in Complex Regional Pain Syndrome 1: A Delphi survey"

APPENDIX SI. Complete list of items that experts considered were associated with poor prognosis in complex regional pain syndrome 1 (CRPS 1) (first round), the corresponding mean attribute weights and interquartile range (IQR) (second round). Items are listed based on descending median followed by ascending IQR range

| Item | Median | IQR |
|---|--------|-----|
| Upper limb ^a | 8 | 7–8 |
| Hand ^d | 8 | 7–8 |
| It is impossible to resume previous level of daily activities and work ^a | 8 | 7–8 |
| Fracture ^a | 8 | 6–8 |
| Prolonged duration of symptoms ^a | 8 | 7–9 |
| Symptoms between 3 and 6 months ^a | 8 | 7–9 |
| Pain intensity > 5 on VAS ^a | 8 | 7–9 |
| Pain at rest, worsening when moving ^a | 8 | 7–9 |
| Any movement is very painful ^a | 8 | 6–8 |
| Pain score is high ^a | 8 | 6–8 |
| Spread of symptoms to uninjured mirror-image or remote sites ^a | 8 | 6–8 |
| Past the acute stage ^a | 8 | 7–9 |
| Hypoesthesia ^a | 8 | 7–9 |
| Lack social network ^a | 8 | 5–8 |
| Pain intensity > 8 on VAS ^a | 8 | 6–9 |
| Severe, excruciating pain ^a | 8 | 5–8 |
| Allodynia ^a | 8 | 5–8 |
| Hyperalgesia ^a | 8 | 6–9 |
| Joint contractures ^a | 8 | 5–8 |
| Spread of pain area ^a | 8 | 6–9 |
| Pathological family support system | 8 | 5–9 |
| Symptoms longer than 12 months | 8 | 5–9 |
| Loss of function | 8 | 5–9 |
| Third metacarpal bone ^a | 7 | 7–8 |
| Unsuccessful response to treatment ^{a,b} | 7 | 5–7 |
| Lack of muscle strength ^a | 7 | 6–8 |
| Loss of skin integrity ^a | 7 | 6–8 |
| Blister ^a | 7 | 6–8 |
| Warm skin ^a | 7 | 6–8 |
| Spontaneous pain ^a | 7 | 6–8 |
| Weakness of the limb ^a | 7 | 5–7 |
| Glossy skin ^a | 7 | 6–8 |
| Faster nail growth ^a | 7 | 6–8 |
| Livid skin discoloration ^a | 7 | 6–8 |
| CRPS related conflict with employer ^a | 7 | 5–8 |
| Someone/something caused the problem ^a | 7 | 5–8 |
| Dominant hand ^d | 7 | 5–8 |
| Spontaneous onset of CRPS ^a | 7 | 5–8 |
| Symptoms between 6 and 12 months ^a | 7 | 5–8 |
| Pain at rest ^a | 7 | 5–8 |
| Pain map altered (in other extremity), spreading pain ^a | 7 | 5–8 |
| Hypoalgesia ^a | 7 | 6–9 |
| Hyperaesthesia ^a | 7 | 5–8 |
| Reduced strength ^a | 7 | 5–8 |
| Non-anatomical spread of the self-reported symptoms or behavioural display ^{a,b} | 7 | 5–8 |
| Vasomotor changes ^a | 7 | 5–8 |
| Trophic changes ^a | 7 | 5–8 |
| Wrist ^a | 7 | 5–8 |
| Pain gets progressively worse ^a | 7 | 5–8 |
| Sudomotor changes ^a | 7 | 5–8 |
| Ulceration ^a | 7 | 5–8 |
| Skin lesion (ulcers, or ischaemic lesions) ^a | 7 | 5–8 |
| Poor social support | 7 | 4–8 |
| Disproportionate postoperative pain | 7 | 4–8 |
| Restricted range of motion | 7 | 4–8 |
| Local vasomotor instability | 7 | 4–8 |
| Hypertrichosis | 7 | 4–8 |
| Motor changes | 7 | 4–8 |
| Holds the affected limb tight | 7 | 3–8 |
| Duration | 6 | 5–7 |
| Female | 6 | 5–7 |
| Male | 6 | 5–7 |
| Employed | 6 | 4–6 |
| Kinesiophobia | 6 | 4–6 |

| | | |
|---|---|-----|
| Post-traumatic stress disorder | 6 | 5–7 |
| > 1 affected extremities | 6 | 5–7 |
| Dystonia | 6 | 6–8 |
| Decreasing range of motion due to soft tissue fibrosis | 6 | 5–7 |
| Loss of limb flexion and incomplete extension | 6 | 5–7 |
| Poor initial response to standard analgesics | 6 | 5–7 |
| Fast recurrence of symptoms following initial response to treatment | 6 | 5–7 |
| Postoperative persisting oedema not related with cast | 6 | 5–7 |
| Very sensitive (cannot bear blanket) | 6 | 5–7 |
| Changes in skin and nail growth | 6 | 6–8 |
| Bluish skin ^b | 6 | 5–7 |
| Difficult coping | 6 | 5–7 |
| Delayed diagnosis | 6 | 5–7 |
| Reddish skin ^b | 6 | 5–7 |
| Social problems with insurance | 6 | 4–7 |
| Angry at doctor and others | 6 | 3–6 |
| Compensable injury | 6 | 4–7 |
| Compensation claim ^b | 6 | 4–7 |
| Movement disorder | 6 | 4–7 |
| Autonomy | 6 | 4–7 |
| Age < 30 years | 6 | 4–7 |
| Age 30–50 years | 6 | 4–7 |
| Age 50–70 years | 6 | 5–8 |
| Age > 70 years | 6 | 4–7 |
| Non-dominant hand | 6 | 4–7 |
| Unemployed | 6 | 5–8 |
| Co-morbid psychiatric disorders (schizophrenia, major anxiety disorders, bipolar disorders) | 6 | 4–7 |
| Non-compliance | 6 | 4–7 |
| Sprain | 6 | 4–7 |
| Unable to return to work and resume previous leisure activities | 6 | 4–7 |
| Loss of mobility | 6 | 5–8 |
| Myoclonus | 6 | 5–8 |
| Decreased range of motion, stiffness | 6 | 5–8 |
| Weakness | 6 | 5–8 |
| Whole extremity is involved | 6 | 4–7 |
| Not responding well to any kind of analgesics | 6 | 4–7 |
| Medication brings no relief | 6 | 5–8 |
| No response to sympathetic blocks | 6 | 4–7 |
| Motor function and hyperalgesia to pinprick have worsened and spread over time | 6 | 5–8 |
| Swelling | 6 | 4–7 |
| Bone loss | 6 | 4–7 |
| Pain | 6 | 3–7 |
| Diagnosis delayed for several years | 6 | 4–7 |
| Signs and symptoms in another extremity | 6 | 5–8 |
| Persisting inflammation | 6 | 5–8 |
| Only small changes in hair and nail growth | 6 | 4–7 |
| Altered hair or nail growth | 6 | 5–8 |
| Problems with medication | 6 | 4–8 |
| Enmeshed in a compensation claim | 6 | 3–7 |
| Poor family/social support | 6 | 4–8 |
| Catastrophizing | 6 | 4–8 |
| No objective | 6 | 4–8 |
| Structural deficits in the affected extremities such as contractions | 6 | 4–8 |
| Severe manifestation of clinical symptoms | 6 | 4–8 |
| Secondary changes in motor and trophic changes | 6 | 3–7 |
| Persistent autonomic manifestations threatening the extremity's function | 6 | 3–7 |
| Brush-evoked allodynia | 6 | 3–7 |
| Changes in hair growth ^b | 6 | 4–8 |
| Atrophy | 6 | 3–7 |
| Trophic changes in nail, hair and skin occur early ^b | 6 | 4–8 |
| Pale skin ^b | 6 | 3–7 |
| Illicit drugs consumption | 6 | 4–8 |
| Cold skin | 6 | 3–7 |
| The extremity seems to dominate the functioning of the patient | 6 | 3–8 |
| Coping skills decline | 6 | 3–8 |
| Disappointed by the unsuccessful treatment and suspected for malingering | 6 | 3–8 |

| | | | | | |
|---|---|-----|--|---|-----|
| Patient or someone in her family has asthma, migraine, menstrual disorders, or chronic inflammatory disease | 6 | 2-7 | Hand | 4 | 3-6 |
| Signs and symptoms are therapy resistant ^b | 6 | 3-8 | Co-morbidities | 4 | 3-6 |
| Depression, anxiety | 5 | 5-6 | Layoff, dismissal | 4 | 2-5 |
| Age | 5 | 4-6 | Involved attorney | 4 | 2-5 |
| Perpetrators (hidden infection, coagulopathy, immune-inflammatory disease) | 5 | 4-6 | Initial boost of optimism, followed by sub-depression | 4 | 3-6 |
| Small restrictions in active and passive movement | 5 | 4-6 | Patient expresses negative expectations regarding the course of the disease ^b | 4 | 2-5 |
| Patient thinks that medications are useless | 5 | 4-6 | Work-related injury | 4 | 3-6 |
| Insufficient fracture immobilization | 5 | 5-7 | Previous treatment with no effect (including ketamine, multidisciplinary approach) | 4 | 2-5 |
| Localization | 5 | 3-6 | Discoloration | 4 | 3-6 |
| Affected limb does not belong to her body | 5 | 3-6 | Hyperhidrosis | 4 | 2-5 |
| The extremity is used as little as possible | 5 | 3-6 | Dry skin | 4 | 3-6 |
| Other pain conditions (e.g. back pain) | 5 | 3-6 | Skin temperature | 4 | 3-6 |
| Fatigue, sleep disturbances, headaches, gastrointestinal complaints, bladder problems | 5 | 4-7 | Problems with family role | 4 | 2-6 |
| Loss of hope of favourable outcome | 5 | 4-7 | Poor family support (widow, living alone) | 4 | 1-5 |
| (History of) depression | 5 | 3-6 | Extensive care from her significant other | 4 | 2-6 |
| Depressed | 5 | 3-6 | Patient has been made redundant and takes employer to court | 4 | 2-6 |
| Extreme anxiety | 5 | 4-7 | Compensation claims, accident insurance compensation | 4 | 2-6 |
| Limited comprehension with regard to his/her complains | 5 | 3-6 | Spread of symptoms | 4 | 2-6 |
| Poor coping strategies and tendency to catastrophizing | 5 | 4-7 | Poor coping | 4 | 3-7 |
| Little confidence in proposed treatment | 5 | 3-6 | Cut | 4 | 2-6 |
| No acceptance of the condition | 5 | 3-6 | Trauma | 4 | 2-6 |
| Difficulties with her activities of daily living | 5 | 4-7 | Untreated underlying neurological pathologies | 4 | 2-6 |
| Physical therapy is hardly possible because of increasing pain | 5 | 3-6 | Poor response to steroid therapy | 4 | 2-6 |
| Several unsuccessful previous therapies ^b | 5 | 3-6 | Skin changes | 4 | 2-6 |
| Several therapies | 5 | 3-6 | Pale skin | 4 | 3-6 |
| Kinesiotherapy too aggressive | 5 | 3-6 | Temperature asymmetry | 4 | 3-7 |
| Skin atrophy | 5 | 3-6 | Primary psychogenic disorders (conversion-somatization, factitious disorders, malingering) | 4 | 2-7 |
| Limited self-management | 5 | 4-7 | Symptoms spreading to another extremity | 4 | 2-7 |
| More impairments, more the daily activity is limited | 5 | 4-7 | Narcotics dependence | 3 | 2-4 |
| Contextual factors | 5 | 2-6 | Cast not tolerated | 3 | 2-4 |
| Ongoing legal issue | 5 | 3-7 | Work situation | 3 | 2-5 |
| Disaffected worker | 5 | 3-7 | Predisposing factors | 3 | 2-5 |
| Litigation | 5 | 2-6 | Unemployment | 3 | 2-5 |
| Initiating event | 5 | 3-7 | Financial difficulties | 3 | 1-4 |
| Mood changes | 5 | 3-7 | Several invasive procedures | 3 | 2-5 |
| Psychosis | 5 | 3-7 | Wound infection | 3 | 2-5 |
| Neglect | 5 | 3-7 | Rapid progression of symptoms | 3 | 2-5 |
| Dominant hand | 5 | 3-7 | Hypohidrosis | 3 | 2-5 |
| Unable to bear own weight on the lower limb | 5 | 4-8 | Differential diagnosis never considers CRPS and therefore time and resources are wasted ^b | 3 | 2-5 |
| Muscle atrophy | 5 | 3-7 | Contusion | 3 | 2-5 |
| Tremor | 5 | 3-7 | Psychological problems | 3 | 1-5 |
| Symptoms spread to all extremities | 5 | 2-6 | Sports injury | 3 | 2-6 |
| Early spread of symptoms | 5 | 3-7 | Initiation after minor injury | 3 | 2-6 |
| Infection | 5 | 4-8 | Lower extremity | 3 | 1-5 |
| Amitriptyline, opioids, cannabinoids have failed | 5 | 3-7 | Foot | 3 | 1-5 |
| Analgesics and exercise unsuccessful | 5 | 4-8 | Considerable functional deficits | 3 | 2-6 |
| Pain recurs soon after treatment | 5 | 3-7 | Progressing immobility | 3 | 2-6 |
| Failure to prior treatment | 5 | 4-8 | Range of motion is moderately to severely impaired | 3 | 2-6 |
| Complications with medication (side-effects) | 5 | 3-7 | Substance abuse | 3 | 1-6 |
| Area of allodynia and pinprick hyperalgesia is increasing in a few weeks | 5 | 4-7 | Overprotective family support | 3 | 2-7 |
| Allodynia impedes physical therapy/occupational therapy | 5 | 3-7 | Lack of social support | 2 | 1-3 |
| Extreme allodynia | 5 | 2-6 | Previously untreated pain | 2 | 1-3 |
| Oedema | 5 | 3-7 | Evidence of malingering | 2 | 1-3 |
| No (more) apparent swelling | 5 | 3-7 | Lives rurally | 2 | 1-4 |
| Discoloration | 5 | 3-7 | Trauma in history | 2 | 1-4 |
| Higher temperature | 5 | 2-6 | Patient is sceptical regarding treatment modalities | 2 | 2-5 |
| Cold phenotype | 5 | 3-7 | Patient is not familiar with using a computer or does not have access to the internet | 2 | 1-4 |
| Trophic nail changes | 5 | 4-8 | Presence of vascular signs ^b | 2 | 2-5 |
| Cold extremity from onset (>1°C colder than healthy side) | 5 | 3-7 | Symptoms spreading to unaffected extremities | 2 | 1-5 |
| Problems with his partner who also is very supportive but also desperate | 5 | 2-7 | | | |
| Passive coping | 5 | 2-7 | | | |
| Accident on the way home from work | 5 | 2-7 | | | |
| Immobilization | 5 | 2-7 | | | |
| Severe tactile allodynia | 5 | 3-8 | | | |
| Early "cold" CRPS | 5 | 2-7 | | | |

^aSet of prognostic factors fulfilling our selection criteria (mean attribute weight of >7 and IQR <3).

^bThese items were edited slightly for conceptual reasons.