Complex Regional Pain Syndrome in General Practice

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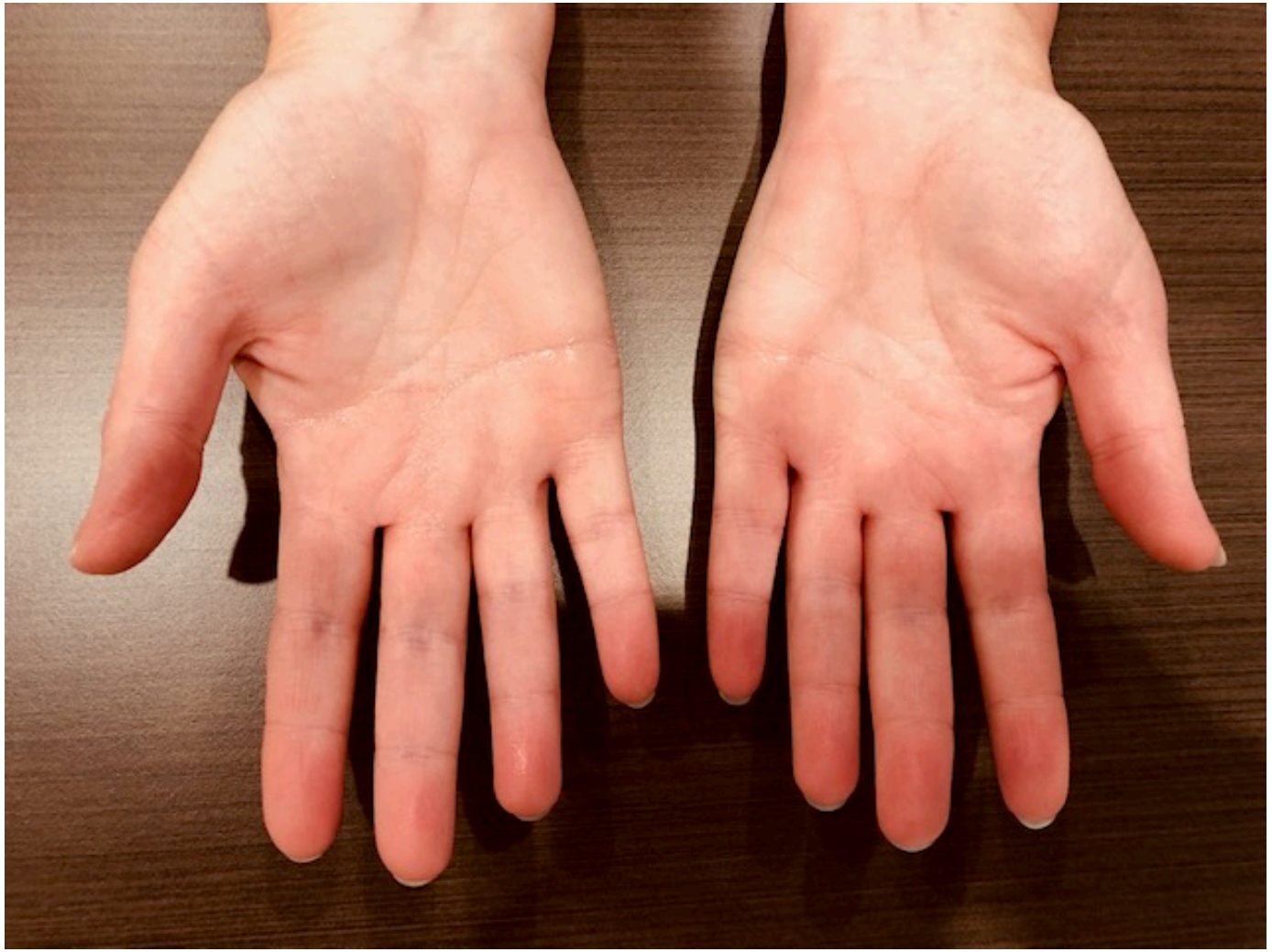
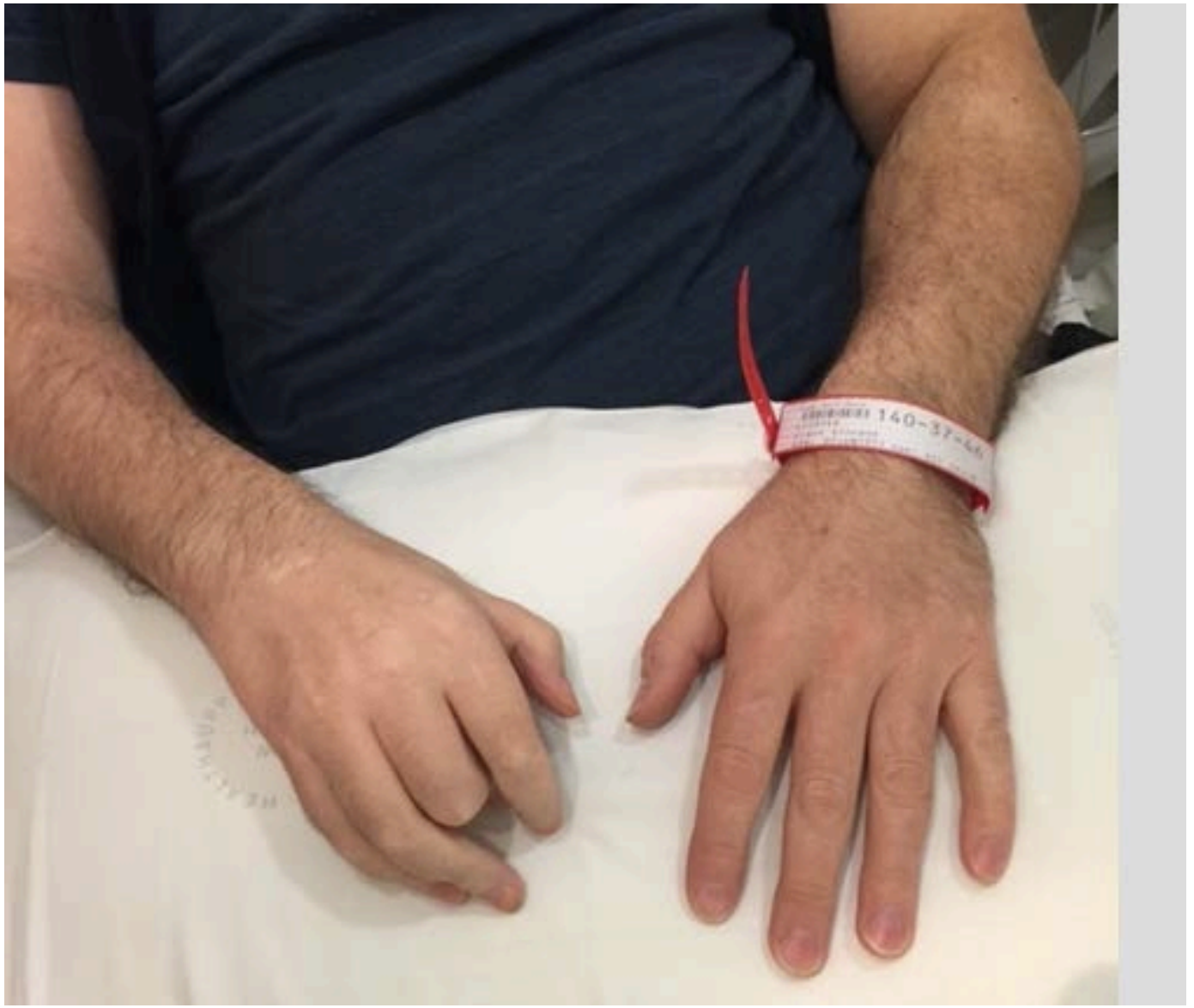
No declarations of interest

Early CRPS: less than 12 months



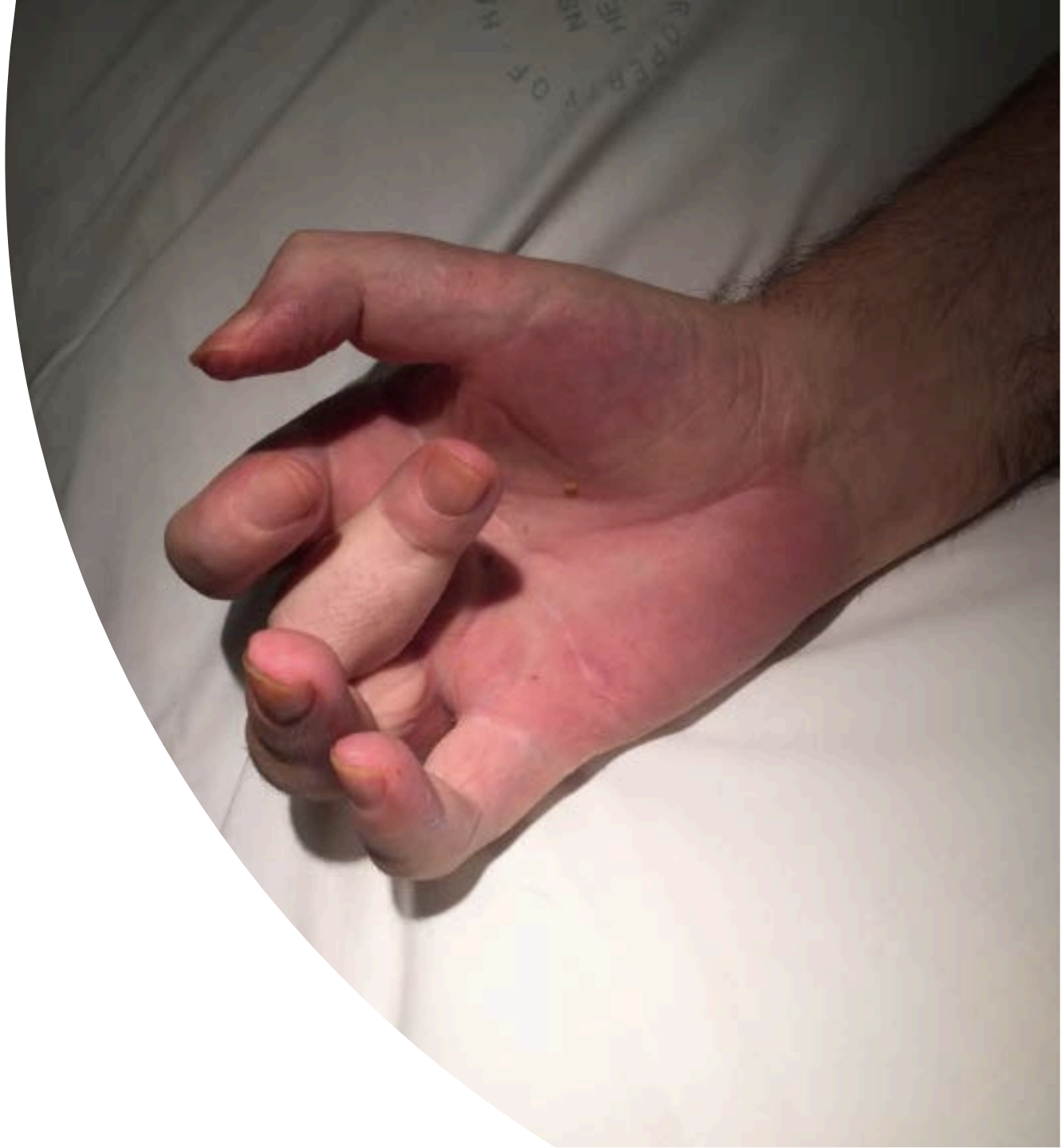
Late CRPS: greater than 12 months



What is CRPS?

Is a clinical syndrome

"A strange pain in a strange looking limb"



“The Pain is Strange”

Severity of pain is out of keeping with the often minor and transient nature of the inciting event.

The affected part looks “strange”: Red, blue, white, swollen

And responds in a “strange” manner: hot, cold, sweaty, tremulous, weak

Budapest Definition of CRPS

Is a syndrome characterized by continuing regional pain that is seemingly disproportionate in time or degree to the usual course of any trauma or other lesion.

The pain is regional (not in a specific nerve territory or dermatome) and usually has a distal predominance of abnormal sensory, motor, sudomotor, vasomotor, and/or trophic findings.

The syndrome shows variable progression over time.

Pain in CRPS

Burning, shooting, electric, pins and needles, freezing cold of affected regional area

Deep ache in adjacent muscles, joint

Spontaneous and/or evoked

Allodynia is a hallmark. Pain is greater than expected.

Diagnostic Criteria in CRPS

	SYMPTOMS NEED 3 OUT OF 4	SIGNS NEED 2 OUT OF 4
SENSORY	HYPERALGESIA/ ALLODYNIA	HYPERALGESIA/ ALLODYNIA
VASOMOTOR	REPORTS OF TEMPERATURE OR COLOUR ASSYMETRY	EVIDENCE OF TEMPERATURE OR COLOUR ASSYMETRY
SUDOMOTOR	REORTS OF OEDEMA OR SWEATING	EVIDENCE OF OEDEMA OR SWEATING
MOTOR/TROPHIC	REPORTS OF WEAKNESS/ TREMOR/ DYSTONIA AND/OR TROPHIC CHANGES: NAIL, HAIR	EVIDENCE OF WEAKNESS/TREMOR /DYSTONIA AND/OR TROPHIC CHANGES: NAIL, HAIR

Clinical conditions that mimic CRPS

- Infection
- Vascular insufficiency
- Limb thrombosis
- Neuropraxia
- Musculoskeletal conditions

Pathophysiology of CRPS: hotly disputed

- Genetic predisposition
- Nerve injury
- Peripheral and central sensitization
- Regional inflammatory and immune activation
- Oxidative stress
- Sympathetic nervous disfunction
- Cortical reorganisation

Subtypes of CRPS

- CRPS Type 1: no evidence of precipitating nerve injury. Formally known as Reflex Sympathetic Dystrophy or Sudeck's atrophy. 90% of presentations.

- CRPS Type 2: nerve injury is present. Formally known as Causalgia. 10% of presentations.

Incidence of CRPS in patient population:

Most common inciting event is upper limb fracture in adults.

Prevalence is 0.2 to 2% following limb surgery.

Upper limb more commonly affected in adults

Lower limb more commonly affected in children

Increased risk in Females (3:1); postmenopausal (50-70 yrs);

Intercurrent rheumatological disease; complicated fractures

Minimising CRPS following orthopaedic surgery

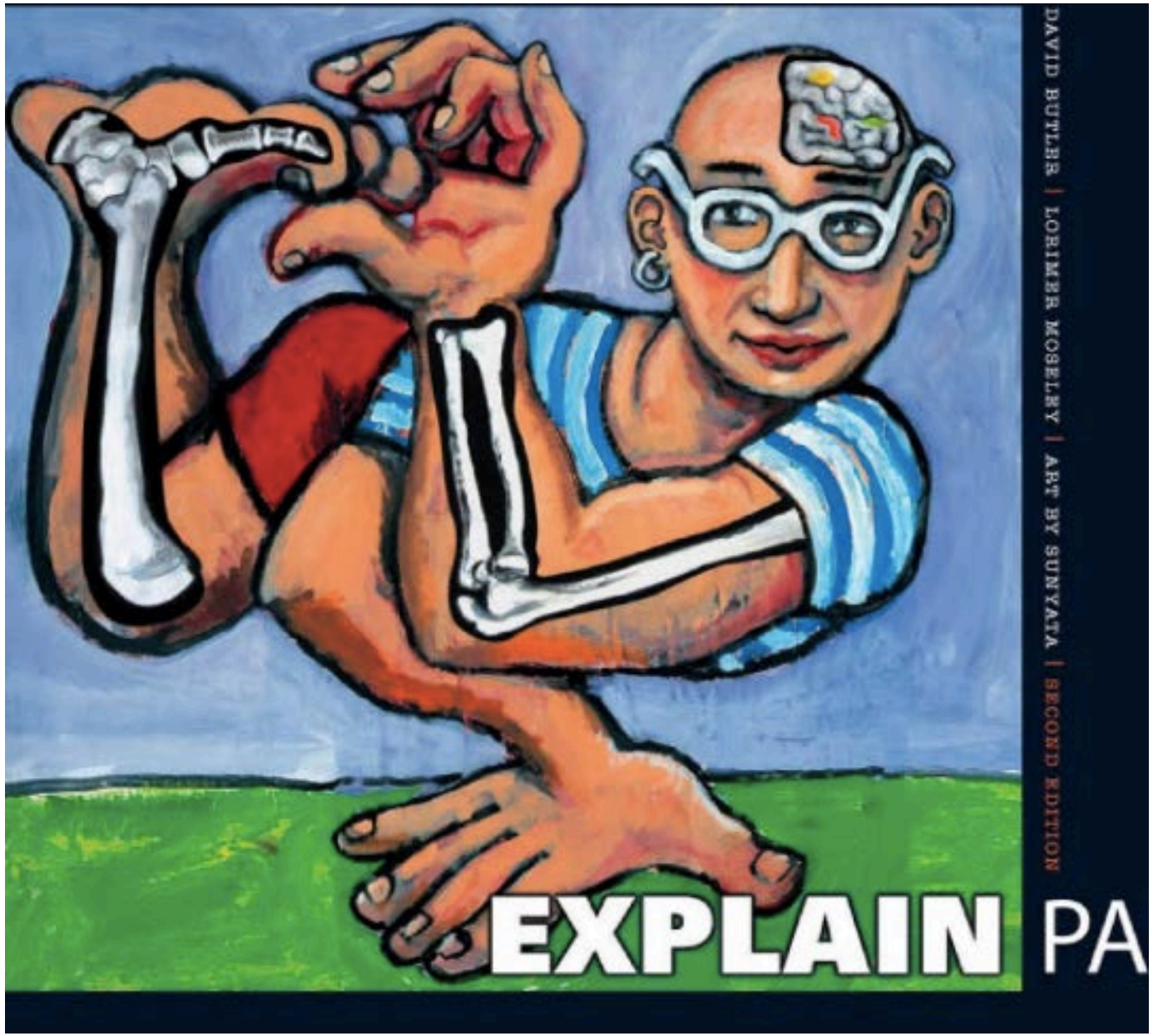
- Effective analgesia
- Early mobilization
- Commencement of neutracutical Vitamin C 500mg/day for 50 days for higher risk patients such as radial fracture
- If a plaster is very painful then there is something wrong

- Early referral to multidisciplinary pain clinic. Pick up the phone.

Management of CRPS

- Early referral to a multi-disciplinary pain clinic for a Psychosocial biomedical assessment
- Provision of analgesia
- Encourage limb mobilization and return to normal function or the

  "Use it or Lose it " principle



Physical and Psychological approaches in CRPS

What do Pain Specialists do for CRPS?

- Validate the syndrome
- Educate the patient, family
- Make recommendations for medications and interventions
- Oversee multi-disciplinary care
- Direct treatment as clinical picture requires
- Medicolegal implications

Multimodal Treatment

- Pain processing: oral and topical anti-neuropathic agents; atypical opioids; avoidance of pure mu opioids
- Immune processing: Vitamin C , Vitamin D3, Aspirin, oral steroids, bisphosphonates
- Sympathetically maintained: Stellate ganglion blocks; Lumbar sympathetic blocks.
- Refractory to conservative management: trial of spinal cord stimulator
- Late CRPS: maintenance ketamine infusions

Prognosis of CRPS

- Improvement greatest in the first 6 months
- Only 5-10 % of patients symptom free at 12 months
- CRPS type 2 generally has a less favourable prognosis

References for CRPS

“Could this be Complex Regional Pain Syndrome?” Dr Jane Standen,

MJA Insight, June 2018

Complex regional pain syndrome up-todate. Birklein et al, Pain Reports Nov; 2(6) 2017

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Thank you

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