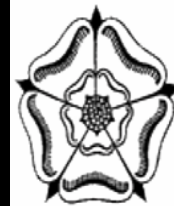


Painful Total Knee Replacement

An Update on RSD

Andrew Toms



EKRU

Exeter Knee Reconstruction Unit

An Update on RSD

Reflex Sympathetic Dystrophy

It Doesn't Exist

An Update on RSD



Complex Regional Pain Syndrome

An Update on CRPS

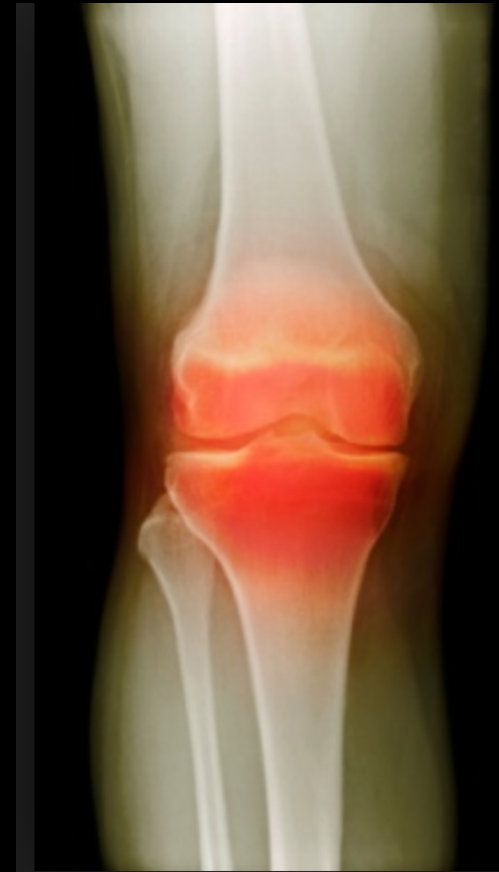
An Update on CRPS

Frustrating – not Black and White

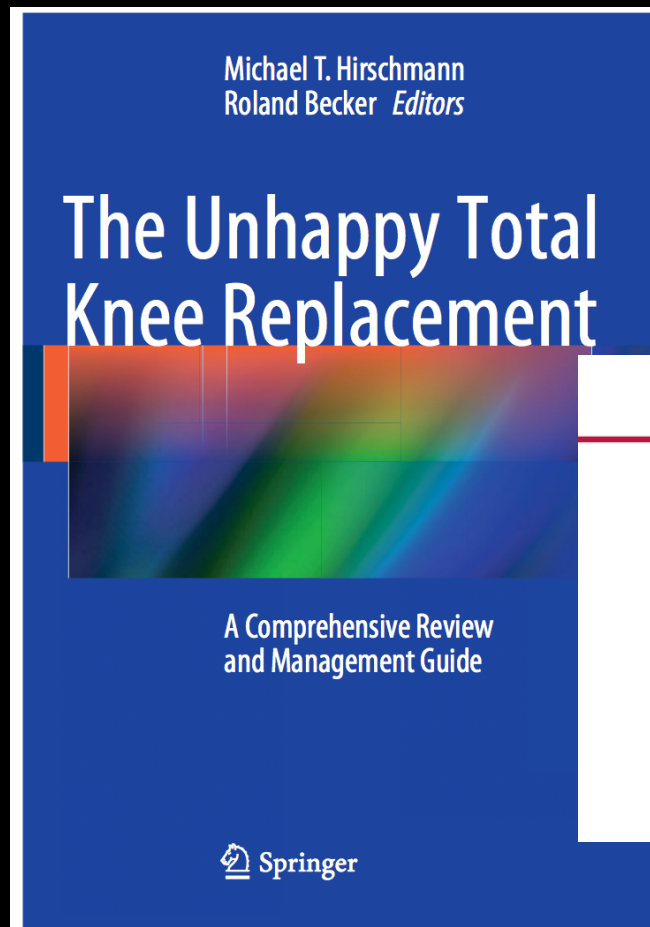
Rare – True CRPS <0.8%

Commonly misdiagnosed

Often Neuropathic pain



Painful Total Knee Replacement



Chronic Regional Pain Syndrome (Algodystrophy) in Patients After Knee Replacement

24

Sufian S. Ahmad and Sandro Kohl

Key Facts

- ◆ CRPS is a potential cause of serious post TKR pain.
- ◆ Multi modal analgesia for all TKR's.
- ◆ Early diagnosis should be attempted.
- ◆ Treatment by specialist multidisciplinary teams

CRPS is not Neuropathic pain

- ◆ Neuropathic type pain post TKR
- ◆ Is common 6/52 35%
 6/12 20%



■ KNEE

The natural history of pain and neuropathic pain after knee replacement

A PROSPECTIVE COHORT STUDY OF THE POINT PREVALENCE OF PAIN AND NEUROPATHIC PAIN TO A MINIMUM THREE-YEAR FOLLOW-UP

J. R. A. Phillips,
B. Hopwood,
C. Arthur,
R. Stroud,
A. D Toms

Bone Joint J 2014;96-B:1227–33.

CRPS criteria

- ◆ 1993 Orlando
- ◆ IASP
- ◆ 2003 Budapest Criteria



IASP

Table 2. IASP CRPS Diagnostic Criteria⁸

CRPS I	CRPS II
2-4 of the following with 2, 3, and 4 being mandatory:	All of the following:
1. The presence of an initiating noxious event, or a cause of immobilization.	1. The presence of continuing pain, allodynia, or hyperalgesia after a nerve injury, not necessarily limited to the distribution of the injured nerve.
2. Continuing pain, allodynia, or hyperalgesia with which the pain is disproportionate to any inciting event.	2. Evidence at some time of edema, changes in skin blood flow, or abnormal sudomotor activity in the region of the pain.
3. Evidence at some time of edema, changes in skin blood flow, or abnormal sudomotor activity in the region of the pain.	3. This diagnosis is excluded by the existence of conditions that would otherwise account for the degree of pain and dysfunction.
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CRPS, complex regional pain syndrome; IASP, International Association for the Study of Pain

Budapest Criteria

Appendix II. Budapest clinical diagnostic criteria for CRPS

- (1) Continuing pain, which is disproportionate to any inciting event
- (2) Must report at least one symptom in *three of the four* following categories:
 - *Sensory*: reports of hyperesthesia and/or allodynia
 - *Vasomotor*: reports of temperature asymmetry and/or skin color changes and/or skin color asymmetry
 - *Sudomotor/edema*: reports of edema and/or sweating changes and/or sweating asymmetry
 - *Motor/trophic*: reports of decreased range of motion and/or motor dysfunction (weakness, tremor, dystonia) and/or trophic changes (hair, nail, skin)
- (3) Must display at least one sign at time of evaluation in *two or more* of the following categories:
 - *Sensory*: evidence of hyperalgesia (to pinprick) and/or allodynia (to light touch and/or deep somatic pressure and/or joint movement)
 - *Vasomotor*: evidence of temperature asymmetry and/or skin color changes and/or asymmetry
 - *Sudomotor/edema*: evidence of edema and/or sweating changes and/or sweating asymmetry
 - *Motor/trophic*: evidence of decreased range of motion and/or motor dysfunction (weakness, tremor, dystonia) and/or trophic changes (hair, nail, skin)
- (4) There is no other diagnosis that better explains the signs and symptoms

An Update on CRPS

Appendix II. Budapest clinical diagnostic criteria for CRPS

(1) Continuing pain, which is disproportionate to any inciting event

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- *Changes in/over skin color asymmetry*
 - *Sudomotor/edema*: reports of edema and/or sweating changes and/or sweating asymmetry
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symptoms

Budapest Criteria

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Budapest Criteria

Appendix II. Budapest clinical diagnostic criteria for CRPS

Very Important

(4) There is no other diagnosis that better explains the signs and symptoms

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The Budapest Criteria

Sensory

Allodynia (aka pain normally not painful situations such as touch, temperature, or movement)
Hyperalgesia (heightened pain intensity)

Vasomotor

Differences in skin temperature (greater than 1°C)
Differences in skin colouration between different sides of the body

Sudomotor/oedema

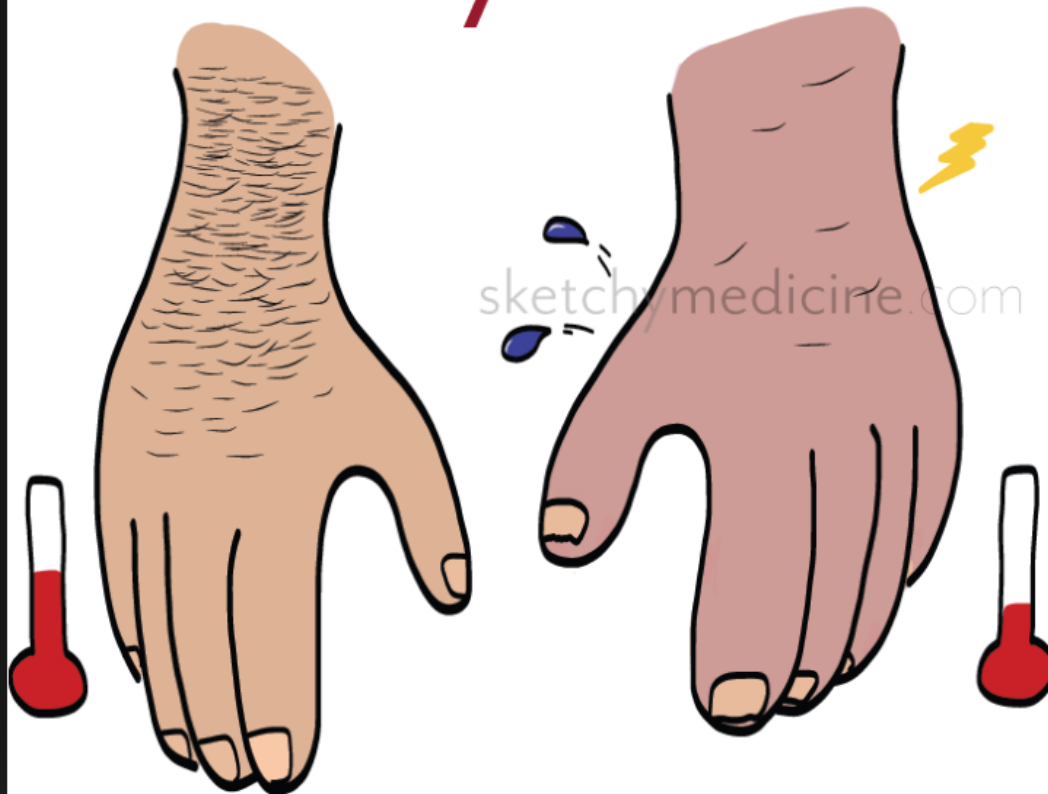
Changes or asymmetry in swelling
Changes or asymmetry in sweating

Motor/trophic

Decreased movement
Motor symptoms (weakness, tremors etc)
Changes in hair/skin/nails

Look For These...

Complex Regional Pain Syndrome



“STAMP”

Sensory

- allodynia
- hypo-/hyperalgesia
- hypo-/hyperesthesia

Trophic

- skin, hair, nail changes

Autonomic

- swelling
- edema
- sweating

Motor

- weakness
- contractures
- atrophy

Pain

Summary

- ◆ Treat Pain
- ◆ Severe postop pain - consider CRPS
- ◆ New criteria
- ◆ BUT...
 - ◆ Treat early
 - ◆ Multidisciplinary
 - ◆ Multimodal
- ◆ Think STAMP



Thank You



■ REVIEW ARTICLE

Evaluation of patients with a painful total
knee replacement

JBJS 2008;90-B:265-71



EKRU

Exeter Knee Reconstruction Unit