Dr James Forbes

MBChB, FANZCA, FFPMFANZCA

Anaesthesiology, Pain Management

To arrange an appointment with Dr James Forbes, please contact:

Consulting Locations

Peninsula Pain Management
Suite 3, Level 6,
105 Frenchs Forest Road West,
Frenchs Forest NSW 2086

P 02 9188 6900
F 02 9188 6901
E referral@peninsulapain.com.au

Practicing Hospitals

Northern Beaches Hospital
105 Frenchs Forest Road West,
Frenchs Forest NSW 2086

Northern Beaches Hospital
105 Frenchs Forest Road West,
Frenchs Forest NSW 2086
P 02 9105 5000
northernbeacheshospital.com.au

Chronic Regional Pain Syndrome

Chronic Regional Pain Syndrome (CRPS) is a neuropathic pain condition affecting a region of the body, not attributable to a particular nerve territory or dermatome. It is diagnosed clinically upon recognition of classic symptoms and signs, including neuropathic pain, autonomic features and localised oedema. It can be subdivided into two different types; Type 1 usually follows trauma or surgical fixation, and Type 2, formerly known as causalgia, follows on from damage to a particular nerve. A third type has been proposed known as CRPS with Remission of Some Features, (previously documented Type 1 or 2) but currently do not display all the diagnostic criteria to fall into these categories.

We find the evolution of the syndrome is variable. Ranging from mild and self-limiting to extreme pain causing severe disability, reduced quality of life and psychological distress.

The pathogenesis is not fully elucidated, but there are known causes involved in the development of the syndrome. These include dysfunction of the sympathetic nervous system, neurogenic inflammation, central sensitization, CNS neuroplasticity and glial cell activation. There are also several hypotheses that consider psychological factors to have an important effect on the pathophysiology of CRPS.

Diagnosis for CRPS is now based on the criteria of the IASP (International Association for the Study of Pain), also known as the Budapest criteria, with a recent Valencia SIG update in 2019. Criteria include the presence of incessant pain disproportional to the initial traumatic event and commonly appear a few weeks after injury or trauma. Patients must have at least one symptom from three of the categories and at least two signs. Finally, there must be no other diagnosis to best explain their symptoms and signs.

Categories	Findings
Sensory	Hyperaesthesia, Allodynia
Motor or Trophic changes	Decreased ROM, weakness tremor, dystonia Skin, hair, nails
Vasomotor	Temperature or colour asymmetry
Pseudomotor	Oedema, sweating

Plain xrays are helpful and can reveal osteoporosis, however this finding has a low sensitivity and found only in 30% of patients. MRI and nerve conduction studies are used to exclude other differentials.

Due to the complex nature of the condition and multitude of contributing factors a multidisciplinary approach is paramount. General goals of treatment aim to reduce pain with a minimum of analgesic drugs, restore function and improve quality of life. We achieve this with medications, percutaneous interventions, patient education, physical therapy and psychological assessment.

There are multiple medications that can be employed; however, their efficacy is limited. These include steroids, calcitonin, bisphosphonates, immunoglobulin, Vitamin C, lignocaine and ketamine. Analgesics are commonly in the form of anticonvulsant and antidepressant medication. Opioids are prescribed but need to be supervised for dose escalation and potential side effects. Percutaneous interventions include sympathetic blocks and neurostimulation techniques. Overall, successful therapy is achieved by a long-term multidisciplinary approach to improve functionality and reduce pain.

At Peninsula Pain Management, we treat this as a potential emergency and early referral is advised. Please feel free to pick up the phone if concerned about your patient and speak to one of us; we are happy to provide advice and expedite the referral as required.

References

- *Kessler A, Yoo M, Calisoff R. Complex regional pain syndrome: An updated comprehensive review. NeuroRehabilitation. 2020; 47(3):253-264. doi: 10.3233/NRE-208001.*
- *Harden RN, McCabe CS, Goebel A, Massey M, Suvar T, Grieve S, Bruehl S. Complex Regional Pain Syndrome: Practical Diagnostic and Treatment Guidelines, 5th Edition. Pain Med. 2022 Jun 10;23(Suppl 1):S1-S53. doi: 10.1093/pm/pnac046. PMID: 35687369; PMCID: PMC9186375.*
- *Johnson S, Cowell F, Gillespie S, Goebel A. Complex regional pain syndrome what is the outcome? - a systematic review of the course and impact of CRPS at 12 months from symptom onset and beyond. Eur J Pain. 2022 Jul;26(6):1203-1220. doi: 10.1002/ejp.1953. Epub 2022 May 4. PMID: 35435302; PMCID: PMC9324966.*
- *Harden NR, Bruehl S, Perez RSGM, Birklein F, Marinus J, Maihofner 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. Pain. 2010 Aug;150(2):268-274. doi: 10.1016/j.pain.2010.04.030. Epub 2010 May 20. PMID: 20493633; PMCID: PMC2914601.*
- *Goebel A, Birklein F, Brunner F, Clark JD, Gierthmühlen J, Harden N, Huygen F, Knudsen L, McCabe C, Lewis J, Maihöfner C, Magerl W, Moseley GL, Terkelsen A, Thomassen I, Bruehl S. The Valencia consensus-based adaptation of the IASP complex regional pain syndrome diagnostic criteria. Pain. 2021 Sep 1;162(9):2346-2348. doi: 10.1097/j.pain.0000000000002245. PMID: 33729210; PMCID: PMC8374712.*