Sussex Hand Surgery

CONDITION
Complex Regional Pain Syndrome (CRPS)

CONDITION

What is Complex Regional Pain Syndrome (CRPS)

This is a complication that can occur after any injury to the upper or lower limb. The affected limb becomes much more stiff, swollen and painful than would normally be expected after the injury.

Is CRPS the same as Reflex Sympathetic Dystrophy (RSD)?

Yes. In fact the term Complex Regional Pain Syndrome was only proposed in 1991. CRPS includes many previously described pain syndromes. As well as RSD conditions such as algodystrophy, causalgia and shoulder-hand syndrome are included in the CRPS 'umbrella'.

There are two main sub-divisions of CRPS. In Type 1 CRPS the symptoms are present without any evidence of a direct injury to a nerve. In Type 1 CRPS the symptoms start in association with a direct injury, such as a cut, to a nerve.

How is the diagnosis of CRPS made?

As there is no blood test or investigation that confirms the diagnosis the condition must be recognised by the pattern of problems the patient describes. In the early stages the four out of the following five findings can be used to diagnose CRPS:

1 Unexplained diffuse pain which is not normal for that stage of injury treatment.

2 A difference in skin colour compared to the other hand/wrist.

3 Diffuse oedema (swelling in the tissues) of the affected hand/wrist.

4 A difference in the skin temperature compared to the other hand/wrist.

5 A limited range of movement in the wrist/fingers compared to that expected at that stage of treatment.

Many other changes have been described.

Why do some people get this and not others?

We don't know the answer to this question but we can say, from observation, which patients are more likely to get CRPS:

This condition is commoner in women than men (4 to 1).

CRPS is commoner in smokers.

Most patients are between 30 and 55 years of age but it can occur in younger people.

A fracture of the distal radius is the most common injury complicated by CRPS. Treatment for a distal radius fracture such as a plaster that is too tight or holds the wrist in a markedly flexed position can increase the chance of CRPS occurring. Carpal tunnel syndrome can also occur after a distal radius fracture (see page on this condition). If the carpal tunnel syndrome is not recognised early and treated promptly it can also increase the chance of CRPS developing after this injury.

Nerve injuries (at the time of the injury or during an operation to try and treat another problem) also increase the chance of CRPS.

What is the treatment for CRPS?

The first thing is to avoid factors that increase the chance of CRPS occurring (see above). There is some evidence that Vitamin C can reduce the incidence of CRPS developing after a distal radius fracture. 500mg per day started as soon as the injury occurs and continued until the wrist is mobile again is very cheap and has almost no side effects.

Making the diagnosis of CRPS early is the next key in effective treatment. This is the single most important predictor of making a good functional recovery.

Once the diagnosis is made a multi-disciplinary approach to treatment is essential with increased input depending on each individual's response. Hand therapy using various treatments is the mainstay for all patients. Tablets maybe considered in more severe cases. Various tablets are available, all of which have some side effects. A review by the 'pain team' maybe considered if these options fail to improve the situation. The pain team is run by Consultant Anaesthetists and they may undertake various injections and 'nerve blocks'. Surgery, either on the nerves, if they have been damaged, or the joints, if they have become very stiff, might also be considered. Surgery should be approached with caution however as there is some risk of increasing the CRPS reaction.

What is the outcome following CRPS?

The severity of the individual symptoms affects this to some extent.

Overall a protracted period of hard work requiring rehabilitation with some medication will usually extend for 3 to 6 months after the original injury. In 80% of patients this will lead to a significant improvement in symptoms.

Most patients with this condition will be left with some residual disability in the longer term, often joint stiffness but sometimes ongoing, unpleasant pain symptoms.

These notes are intended as a guide and some of the details may vary depending on your individual circumstance and at the discretion of your surgeon.

© Sussex Hand Surgery
November 2024