

Christensen K, Jensen EM, Noer I. The reflex dystrophy syndrome response to treatment with systemic corticosteroids. Acta Chir Scand 1982;148:65—655.

Reviewed, no change to conclusions, February 2017

Design: randomized clinical trial

Population/sample size/setting:

- 23 patients (20 women, 3 men, mean age 66) treated for CRPS-I at a department of physical medicine in Copenhagen
- Selection based upon meeting at least 4 of 7 criteria for diagnosis: pain, edema, volar swelling, raised skin temperature, painful finger flexion, increased resting blood flow measured by strain gauge technique, and spotty osteoporosis
- Exclusion criteria not specified, but all patients had some antecedent trauma of the upper limb; the mean interval between trauma and diagnosis of CRPS was 92 days (range from 50 to 194 days)

Main outcome measures:

- Randomized to prednisone (n=13) or placebo (n=10)
- Prednisone was taken at a dose of 10 mg tid until a clinical response was obtained, but for no more than 12 weeks
- Response was defined as improvement of 75% on a 20 point severity scale based on pain, edema, volar swelling, and finger-knitting ability
- All 13 prednisone patients had a 75% improvement in severity and were classified as responding to treatment; only 2 of the 10 placebo patients responded

Authors' conclusions:

- Administration of systemic corticosteroids is a successful treatment of CRPS
- Most patients had an increase in resting blood flow; this suggests that increased sympathetic activation is unlikely and that sympathetic blockade is not likely to be successful

Comments:

- Numerous basic pieces of information are lacking: exclusion criteria (if any), method of randomization, concealment of allocation, duration of treatment (how long the prednisone group took the study drug), blinding of participants and/or assessors, adverse effects, and timing of follow-up (may have been 12 weeks but this is not clear)
- The risk of bias is therefore high
- However, the degree of bias may not be great enough to entirely account for the very large difference between prednisone and placebo; prednisone is likely to be effective

Assessment: adequate for evidence that prednisone may reduce the symptoms of CRPS-I