

**Adami S, Fossaluzza V, et al. Bisphosphonate therapy of reflex sympathetic dystrophy syndrome. Ann Rheum Dis 1997;56:201-204.**

Design: Randomized clinical trial

Brief summary of results:

- 20 patients (12 women, 8 men, age range 39-80) treated for CRPS-I at the University of Verona, Italy
- All complained of pain, cold sweating, and tenderness in an extremity with swelling and signs of vasomotor instability (pallor/cyanosis/redness)
- All had radiographic evidence of diffuse or patchy osteopenia
- Randomized to IV alendronate 7.5 mg or placebo, dissolved in 250 ml saline, administered daily for 3 days
- At day 14, all patients received 7.5 mg of alendronate as an open-label solution daily for 3 days
- Efficacy assessed by spontaneous pain score by VAS, tenderness, swelling, and motion; bone density was also measured by DXA before and 6 weeks after treatment began
- Patients randomized to alendronate improved in pain, tenderness, swelling, and motion during the first 14 days of the trial; placebo patients did not change in these variables
- After the first 14 days, the placebo patients received their first alendronate infusion, and the alendronate patients received their second alendronate infusion
- The patients who received placebo first responded to the alendronate which was administered after day 14
- Bone scans showed increased bone mineral content of the wrist 6 weeks or more after the baseline DXA scan
- Treatment was well tolerated; however, 3 patients had moderate fever the day after the first IV infusion of alendronate

Authors' conclusions:

- IV alendronate is an effective therapeutic approach to most patients with CRPS

Comments:

- Reporting of methods and data is sparse and difficult to assess; the pain score responses are given in percentiles of each group, which, with only 10 patients per group, is not informative
- Randomization was done by the pharmacist, but the method is not described

Assessment: Inadequate for evidence about the effectiveness of alendronate