**Bellapianta J, Swartz F, et al. Randomized prospective evaluation of injection techniques for the treatment of lateral epicondylitis. Orthopedics. 2011;34(11);e708-12.**

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Purpose of study: In patients with lateral epicondylitis, to compare the effectiveness of injecting steroids with a single site injection versus injecting steroids with a peppered technique

Brief summary of findings and reasons not to cite as evidence:

* 33 elbows in 31 patients with lateral epicondylitis were randomized to two techniques of injecting 1 ml of 10 mg/ml triamcinolone plus 1 ml of 2% lidocaine: either depositing the entire solution at one location (n=15), or by injecting small amounts of the solution in several sites by redirecting the needle and depositing the solution in a peppered fashion (n=18)
* After 10 weeks, the single-site injection group had significant improvements in grip strength, pain VAS, and DASH scores compared to the peppered group
* The study is not useful as evidence because of several major problems
  + The differences between the groups is not reported; instead, the authors present within-group change scores and p values for each group separately, and appear to base their conclusions on smaller p values for the single-site injection group
  + The study is too small, and followup too poor, to support conclusions about the comparative effectiveness of the two injection techniques (only 4 patients in the single-injection and 5 in the peppered injection group attended the 10 week followup)
  + The timing of the outcome assessment is only 10 weeks, and this is too short a time to discover whether the short-term benefit of steroid injection, known from other studies not to be sustained in the intermediate term, is affected by the technique of injection
  + Therefore, no information can be gleaned from the study to indicate whether changing the injection technique can improve on the generally disappointing clinical course of lateral epicondylitis in which steroid injection is done