**Creaney L, Wallace A, et al. Growth factor-based therapies provide additional benefit beyond physical therapy in resistant elbow tendinopathy: a prospective, single-blind, randomised trial of autologous blood injections versus platelet-rich plasma injections. Br J Sports Med. 2011;45(12);966-71.**

PMID: 21406450

Design: randomized clinical trial

Purpose of study: to compare the effectiveness of autologous whole blood injection (ABI) with that of platelet-rich plasma (PRP) in treating lateral epicondylitis

Reasons not to cite as evidence:

* The study compares two interventions of uncertain efficiency and finds no difference between ABI and PRP, and concludes that both are effective for lateral epicondylitis; this is difficult to justify when there is no placebo group
* There are some difficulties in describing the two interventions, especially with respect to the amount of blood which was drawn and injected
  + Each group had blood drawn into an 8.5 ml vacutainer tube, but the amount of blood is not stated; it could not have been greater than 8.5 ml but may have been less
    - Most studies of PRP involve drawing more than 8.5 ml to centrifuge; amounts of 27 ml, 54 ml, and even 100 ml have been drawn in some clinical trials involving the lower extremity
    - This does not mean that the amount was insufficient; the PRP had a mean of 2.8 times the number of platelets in whole blood, which is in line with other studies
  + 1.5 ml from the buffy coat layer was used for the PRP group, but the amount of whole blood injected into the ABI group is not clearly stated
* The comparisons of groups is not well executed with respect to the statistical analysis; the authors repeatedly report whether or not the 95% confidence intervals of the groups overlapped, rather than on the means of the group differences with their confidence intervals; this is an error in analysis which cannot be remedied by the reader, since the standard deviations are not provided

Information which may be derived from the study:

* It appears that the injection of autologous whole blood was at least as effective (and possibly more effective) than PRP
* Since the study is not designed as a noninferiority comparison, there is not enough information to justify an evidence statement to that effect, but there was no evidence that PRP was superior to autologous whole blood, which may be of interest for the guideline