

Senbursa G, Baltaci G, Atay A. Comparison of conservative treatment with and without manual physical therapy for patients with shoulder impingement syndrome: a prospective, randomized clinical trial. Knee Surg Sports Traumatol Arthrosc 2007;15:915-921.

Design: Randomized clinical trial

Study question: in the setting of shoulder impingement syndrome, are there differences in outcome between physical therapy treatment with self-management training (exercise) and treatment with joint and soft tissue mobilization (manual) techniques

Reasons not to cite as evidence:

- Several important indicators of study quality are absent from the report
 - o There is no description of the method of randomization
 - o Allocation concealment is not mentioned and may not have been done
 - o Blinding of outcome assessment is unclear
 - o Only four week data are presented
 - o The presentation of results is brief, sketchy and unclear
 - For example, range of motion (ROM) for abduction, flexion, and external rotation, is stated to have improved significantly in the manual therapy group but not in the exercise group
 - The only ROM outcome data is in the form of bar graphs in Figure 2, which present external and internal rotation but not flexion or abduction
 - The bar graphs appear to show improvement in both groups, with the “after treatment” ROM appearing to be greater for the exercise than for the manual therapy group
 - The cryptic statement is made that “there were statistically differences [sic] between the groups in function ($P>0.05$)”
 - A similarly cryptic set of results is presented in Table 2, the “Neer results of patients with subacromial impingement”
 - The table is broken down into “Neer 1” and “Neer 2” and counts of patients with values of 0 and 1
 - “Neer 1” and “Neer 2” generally refer to classifications of proximal humeral fractures, and without explanation, make no sense in this context
- The article is not only unsuitable for citation as evidence; it is unsuitable for citation as information