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Lauren Dolick
Otterbein University, lauren.dolick@otterbein.edu

Elizabeth Lefever
Otterbein University, elizabeth.lefever@otterbein.edu

Joe Wilkins
Otterbein University, jwilkins@otterbein.edu

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Effects of Soft Tissue Mobilization and Stretching on GIRD in Collegiate Baseball Players

Lauren Dolick, Liz Lefever, Joseph Wilkins, MEd, AT, CSCS

Health and Sports Sciences; Otterbein University

PURPOSE

Compare an experimental group receiving Graston technique and a stretching program to a control group receiving only the stretching program and to see whether GIRD decreases more with the experimental group or the control group.

PARTICIPANTS

Twenty-one Division III Collegiate baseball players and were randomly selected and placed into the intervention or control group.

PROCEDURES

The patient's shoulder internal and external rotation ROM of both dominant and nondominant arms were measured pre- and post-test with a goniometer and performed by an expert. Each measure was taken three times and recorded on the data collection sheet. The average of the measures was used for data analysis. Attendance was recorded for each day they were required to come in for treatment. Both experimental and control groups performed 3 posterior capsule shoulder stretches: cross-body stretch, sleeper stretch, and posterior capsule stretch. All three of these stretches were held for 30 seconds and repeated 3 times. The experimental group also received one session per week of Graston Technique. In this session, their dominant arm pectoralis major, biceps tendon, rhomboids, teres major, posterior rotator cuff muscles, and latissimus dorsi were treated.

RESULTS

A one-way ANOVA was conducted. According to the p-values, the results were not found to be statistically significant. A p-value of 0.443 was found for the Graston Technique/stretching group and a p-value of 0.711 was found for the stretching group.

MAIN OUTCOMES

Results were found to be clinically significant as shown by the improvements in GIRD. The Graston Technique/Stretching group had 7/11 patients show an increase in ROM. In the stretching group 7/10 patients showed an increase in ROM.

CONCLUSIONS

Further studies should include a larger sample size and a longer study with increased treatment time (2-3 times per week). With a larger sample size and an increased length of time with more frequent treatments, there might be a more significant outcome in the glenohumeral ROM measurements, specifically internal rotation.

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KEY WORDS: *Graston, GIRD, posterior capsule stretch, cross body stretch, sleeper stretch*