

## **Studies with Direct Industry Affiliation are More Likely to Report Positive Results in Randomized Controlled Trials for Platelet-Rich Plasma Use in Rotator Cuff Tears**

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**INTRODUCTION:** Platelet-Rich Plasma (PRP) represents an increasingly popular therapy for orthopedic injuries. As a result of the general optimism surrounding PRP injections, many industry companies are now producing PRP preparation and administration devices. Due to the potential for conflicts of interest, industry ties must always be considered when assessing study outcomes but become especially important when consensus has not yet been reached on treatment efficacy. This study aims to evaluate the effect of industry affiliation on the outcomes of randomized controlled trials (RCTs) for platelet-rich plasma (PRP) injections in rotator cuff tears treated non-operatively and in conjunction with operative management.

**METHODS:** PubMed, SPORTdiscus, and Scopus databases were searched from 2010 to the present for the terms “rotator cuff” and “platelet-rich plasma”. After identifying the included randomized controlled trials, manuscripts and publicly available disclosure databases were analyzed for affiliation. Studies were designated as having direct, indirect or no industry affiliation based on the results of data collection. Direct affiliation required the study or its authors to receive financial support from the company manufacturing the devices used in the study to prepare or administer PRP. Studies were further classified as operative or non-operative. Studies were classified as favorable if study outcomes achieved significance ( $p < 0.05$ ) comparing PRP to control. Data was analyzed using chi-squared and fisher’s exact tests.

**RESULTS:** After full text-screening, 47 were selected for final analysis. Of the 47 studies, 8 (17.0%) were determined to have direct industry affiliation, 9 (19.1%) indirect affiliation and 30 (63.8%) no industry affiliation. Twenty-two (46.8%) studies reported favorable results with PRP use compared to the control and 25 (53.2%) analogous. Degree of industry affiliation was significantly associated with increased likelihood of reporting favorable study outcomes ( $p = 0.041$ ). Directly affiliated studies have a significantly increased likelihood of reporting favorable results ( $p = 0.024$ ) compared to indirectly affiliated.

**DISCUSSION AND CONCLUSION:** Studies using PRP preparation or administration devices produced by companies that directly fund the study are significantly more likely to report favorable results. Physicians should exercise caution when interpreting the results of studies directly affiliated with industry, especially regarding the use of PRP in the management of rotator cuff tears.