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# The High Prevalence of Spin Reporting Bias in Meniscal Allograft Transplant Abstracts: A Qualitative Assessment Of Systematic Reviews and Meta-Analyses

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# Disclosures:

**Anikar Chhabra –**

Arthrex, Inc: Paid consultant; Paid presenter or speaker

Smith & Nephew: Paid consultant

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**Seth Sherman –**

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# Introduction

- Spin is a recent concept that is defined as a reporting bias that misrepresents research and can impact clinical decision making and patient care.
- Meniscal allograft transplantation (MAT) serves as an alternative to meniscectomy or arthroscopic meniscus repairs in the treatment of meniscal tears.
- There continues to be a debate of long and short-term outcomes of MAT compared to conservative modalities.



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# Objective

- The purpose of this study is to identify the prevalence of spin in meta-analysis and systematic review abstracts regarding the efficacy of MAT.



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# Materials and Methods

- A review of meta-analyses and systematic reviews regarding clinical outcomes of MAT was performed utilizing electronic libraries.
- Each study was evaluated for the nine most severe types of spin.<sup>1</sup>
- Additionally, the methodological quality of a systematic review was assessed using the revised A Measurement Tool to Assess Systematic Reviews (AMSTAR 2) appraisal tool.



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# Results

- Twenty-seven articles met inclusion criteria and it was found that 74% (20/27) contained at least one spin bias in the abstract.
- Of the nine most severe types of spin found in abstracts, type 5 was found to be the most prevalent (20/27, 74%), followed by type 3 (5/27, 19%).
- According to AMSTAR-2, 15% (4/27) of the studies were appraised as “low” quality and 85% (23/27) as “critically low” quality.





# Table 1. Abstracts with Spin

- Nine Most Severe Types of Spin per Yavchitz et al<sup>1</sup>

Nine Most Severe Types of Spin	Articles With Spin
1. Conclusion contains recommendations for clinical practice not supported by the findings	0 (0%)
2. Title claims or suggests a beneficial effect of the experimental intervention not supported by the findings	0 (0%)
3. Selective reporting of or overemphasis on efficacy outcomes or analysis favoring the beneficial effect of the experimental intervention	5 (19%)
4. Conclusion claims safety based on non-statistically significant results with a wide confidence interval	1 (4%)
5. Conclusion claims the beneficial effect of the experimental treatment despite high risk of bias in the primary studies	20 (74%)
6. Selective reporting of or overemphasis on harm outcomes or analysis favoring the safety of the experimental intervention	2 (7%)
7. Conclusion extrapolates the review's findings to a different intervention	0 (0%)
8. Conclusion extrapolates the review's findings from a surrogate marker of a specific outcome to the global improvement of the disease	0 (0%)
9. Conclusion claims the beneficial effects of the experimental treatment despite reporting bias	2 (7%)



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# Limitations

- Although clearly defined, determining spin has a subjective aspect which the authors attempted to mitigate via independent assessment and predetermined protocol for disagreements.



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# Conclusion

- This study demonstrated the presence of spin in a significant portion (74%) of meta-analysis and systematic review abstracts pertaining to meniscal allograft transplantation.
- Orthopedic surgeons should learn to recognize spin as they review articles when deciding to utilize MAT for patients undergoing meniscectomy.
- Strict criteria should be considered to reduce the prevalence of spin in orthopedic literature.



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# References

- 1. Yavchitz, A., Ravaud, P., Altman, D. G., Moher, D., Hrobjartsson, A., Lasserson, T., & Boutron, I. (2016). A new classification of spin in systematic reviews and meta-analyses was developed and ranked according to the severity. *Journal of clinical epidemiology*, 75, 56–65.  
<https://doi.org/10.1016/j.jclinepi.2016.01.020>



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