## Mean Values after Treatment or Mean Difference?

Behnam Amani<sup>1</sup>, Arash Akbarzadeh<sup>2</sup>, Bahman Amani,<sup>1\*</sup>

<sup>1</sup>Department of Health Sciences Education Development, School of Public Health, Tehran University of Medical Sciences, Tehran, Iran.

<sup>2</sup>Department of Epidemiology and Biostatistics, School of Public Health, Tehran University of Medical Sciences, Tehran, Iran. Correspondence: Department of Health Sciences Education Development, School of Public Health, Tehran University of Medical Sciences, Tehran, Iran. Email: B-Amani@alumnus.tums.ac.ir

In a systematic review and meta-analysis Published in the  $Urology^{(1)}$  entitled "Low-Intensity Extracorporeal Shock Wave Therapy for Erectile Dysfunction: a Systematic Review and Meta-Analysis" by Libo and Guizhong in 2017, the authors in methods section state that "weighted mean difference (MD) was used for continuous variables in their meta-analysis". While, the authors used the endpoint scores as the mean difference in each group regardless of the baseline scores and one study<sup>(2)</sup> that baseline used as mean difference

Based on statistical literature in meta-analysis, the "mean difference" is change average from baseline to endpoint. So, to calculate the mean difference, we should use endpoint minus baseline mean score<sup>(3)</sup>. In our understanding, , it seems that the result of Libo's meta-analysis<sup>(1)</sup> should revise for the mean difference as

In our understanding, , it seems that the result of Libo's meta-analysis<sup>(1)</sup> should revise for the mean difference as mentioned above.

## REFERENCES

- 1. Libo M, Guizhong L. Low-Intensity Extracorporeal Shock Wave Therapy for Erectile Dysfunction: a Systematic Review and Meta-Analysis. Urology. 2017.
- 2. Vardi Y, Appel B, Kilchevsky A, Gruenwald I. Does low intensity extracorporeal shock wave therapy have a physiological effect on erectile function? Short-term results of a randomized, double-blind, sham controlled study. The Journal of urology. 2012 May;187(5):1769-75. PubMed PMID: 22425129. Epub 2012/03/20. eng.
- **3.** Cooper H, Hedges LV, Valentine JC. The handbook of research synthesis and meta-analysis: Russell Sage Foundation; 2009.