

Comments on “Comparison of the outcomes of flexible ureteroscopy and mini-percutaneous nephrolithotomy for the treatment of kidney stones: a matched-pair analysis”

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Dear Editor,

In the article entitled “Comparison of the outcomes of flexible ureteroscopy and mini-percutaneous nephrolithotomy for the treatment of kidney stones: a matched-pair analysis,” Rodrigues et al.¹ compared the outcomes of initial mini-percutaneous nephrolithotomy and flexible ureteroscopy. This study has scientific relevance; however, it did not answer an important question: does statistical significance ($p < 0.05$) have clinical importance? A comparison of outcomes must consider the clinical relevance of the differences because the p -value only shows statistical significance, in which interpretation translates only a hypothesis test governed by a probability of previously defined error (α)².

According to Andrade³, in this context, most persons interpret $p < 0.05$ to mean that the probability that chance is responsible for the finding is less than 5% and that the probability that the finding is a true finding is more than 95%. Both these interpretations are incorrect; however, they are widely prevalent because they are an easy way to explain and understand a slightly tricky concept. As this is the first study on this topic, I would like to appreciate as there are suggestions for the authors to be included in future studies.

In the health area, there are several ways to verify the clinical relevance of the comparison of outcomes, e.g., the

calculation of the effect size, the minimum detectable change/difference, and the standard error of measurement⁴. I would like to suggest the authors about the calculation of effect size (Cohen's d) for comparison studies (https://www.psychometrica.de/effect_size.html), based on three categories: less than 0.2 (small effect), about 0.5 (moderate effect), and greater than 0.8 (large effect).

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AUTHORS' CONTRIBUTIONS

APS: Conceptualization, Data curation, Formal Analysis, Investigation, Methodology, Project administration, Resources, Supervision, Validation, Visualization, Writing – original draft, Writing – review & editing.

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