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Comments on "Demonstration of kinesio taping effect by ultrasonography in neck pain"

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Dear Editor,

Ceylan et al.[1] showed that the Visual Analog Scale (VAS) and Neck Disability Index (NDI) scores in the kinesio taping group were statistically significantly improved when compared to the exercise group ($p<0.05$). According to the authors, "the combination of kinesio taping and exercise therapy was effective in reducing nonspecific neck pain and neck disability". Unfortunately, the authors' conclusion is different from the results presented. By the way, they themselves recognized that "in this study, there was no group that did not receive treatment to show the true effect of the kinesio taping" (p. 1456). That is, it was not possible to know if kinesio taping helped to reduce pain and disability.

Besides, the study did not present the minimal clinically important change (MCIC) of the disability and the pain for patients with neck pain. We know that comparisons of outcomes (e.g., pain and disability) must consider the MCIC of the differences because the p-value only shows statistical significance, whose interpretation translates just a hypothesis test governed by a probability of previously defined error (α)[2]. 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; unfortunately, they are widely prevalent because they are an easy way to explain and understand a slightly tricky concept[3].

The MCIC for the NDI (scale range, 0–50) is 10.5 points, and for the pain on the Numerical Pain Rating Scale (scale range, 0–10) it is 4.3 points[4]. Regarding disability, the kinesio taping did not show MCIC. Regarding pain, the authors used an instrument (VAS) that does not have an established MCIC for patients with neck pain. In addition, they did not present raw mean difference ($\Delta=\overline{X}^1-\overline{X}^2$) or assess the effect size (Cohen's $d=[M1-M2]/S_{pooled}$) of the comparisons between the groups.

As such, the new conclusion is that kinesio taping added to an exercise program for patients with neck pain is not superior to the same exercise program without the addition of kinesio taping (i.e., kinesio taping seems to be ineffective).

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