

Effects of subject posture on the outcomes of application of kinesiology tape for mechanical corrections

Sir,

Numerous studies have reported on the results of applying kinesiology taping (KT) for various symptoms; the use of KT is gradually increasing in sports competitions, such as the Olympic Games or football leagues, as well in clinical medicine. An article titled "Is application of Kinesio tape to treat hyperlordosis more effective on abdominal muscles or hamstrings?" that was recently published in the *Journal of Research in Medical Sciences* was reviewed with considerable interest.

In this study, a well-designed double-blinded randomized controlled trial was performed to reduce lumbar lordosis in women with hyperlordosis.^[1] KT was applied in two patient groups, namely, an abdominal taping group, where the tape was applied to the abdominal and external oblique muscles involved in the pelvic posterior tilt, and a hamstring taping group, where KT was applied to the biceps femoris and semimembranosus muscles involved in the pelvic posterior tilt.^[2] Contrary to previous studies,^[3] in this study, KT did not show an immediate reduction in lumbar lordosis in both groups; however, significant reduction occurred after 24 h.

I aim to carefully examine the postures of the participants in whom KT was applied. In this study to reduce lumbar lordosis in the abdominal taping group, KT was applied on the abdominal and external oblique muscles with the participants in supine and side line positions with the posterior pelvic tilt induced, which was the method used in previous studies.^[3,4] For the hamstring taping group, KT was applied on the biceps femoris and semimembranosus muscles with the participants in the standing position with the trunk bent forward to induce the pelvic anterior tilt. For applying KT to a tight or fatigued hamstring muscle, the hamstring muscle was stretched.^[5] However, a hamstring muscle of a woman with hyperlordosis was overstretched rather than being tight or fatigued. In

addition, previous studies showed more reduction in the pelvic anterior tilt when KT was applied to the target posture (the pelvic posterior tilt posture where the origin and insertion of the muscle became close) for mechanical correction effect than when it was applied to the posture where the muscle was stretched.^[3,4]

It is worth investigating how the results would differ if KT was applied under the pelvic posterior tilt condition in the hamstring taping group similar to that in the abdominal taping group. It is unfortunate that KT was not applied under the same conditions, that is, the pelvic posterior tilt condition to allow accurate comparison of changes in pelvic tilt angles between both groups. In addition, the direction of arrows indicating the direction of kinesiology tape application on the biceps femoris and semimembranosus muscles could cause confusion among the readers because it differs from the explanation in the sentence.^[1]

Studies are also required to investigate the effects on lumbar lordosis when KT is applied on the abdominal, external oblique, and hamstring muscles under the pelvic posterior tilt condition versus the pelvic anterior tilt condition.

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Conflicts of interest

There are no conflicts of interest.

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REFERENCES

1. Shirazi SA, Haghghi FM, Alavi SM, Nezhad FF, Emami F. Is application of kinesio tape to treat hyperlordosis more effective on abdominal muscles or hamstrings? *J Res Med Sci* 2018;23:9.
2. Magee DJ. *Orthopedic Physical Assessment*. 6th ed. St. Louis: Elsevier Health Sciences; 2014. p. 654.
3. Lee JH, Yoo WG, Kim MH, Oh JS, Lee KS, Han JT, *et al*. Effect of posterior pelvic tilt taping in women with sacroiliac joint pain during active straight leg raising who habitually wore high-heeled shoes: A preliminary study. *J Manipulative Physiol Ther* 2014;37:260-8.
4. Lee JH, Yoo WG. Application of posterior pelvic tilt taping for the treatment of chronic low back pain with sacroiliac joint

dysfunction and increased sacral horizontal angle. Phys Ther Sport 2012;13:279-85.

5. John G. A Practical Guide to Kinesiology Taping. Nutbourne, Chichester: Lotus Pub.; 2014.

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