Do convolutions in Kinesio Taping matter? Comparison of two Kinesio Taping approaches in patients with chronic non-specific low back pain: protocol of a randomised trial

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Abstract

Introduction: Chronic low back pain is a common condition. A new intervention that is popular in sports has been used in patients with low back pain. This technique is based on the use of elastic tapes that are fixed on the skin of patients using different tensions and is named Kinesio Taping Method. Although this intervention has been widely used, to date the evidence of its effectiveness is lacking. Research Question: Is the application of the Kinesio Taping Method according to the treatment manual (with convolutions in neutral position) more efficacious than a simple application without convolutions in patients with chronic low back pain? Design: Two-arm randomised controlled trial with a blinded assessor. Participants and Setting: 148 patients with chronic low back pain from two outpatient physiotherapy clinics in Brazil. Intervention: 8 sessions of Kinesio Taping according to the Kinesio Taping Method treatment manual (ie, 10–15% tension with the treated muscles in stretching position and with convolutions in neutral). Control: 8 sessions of Kinesio Taping having no convolutions in neutral (0% tension) with the treated muscles in resting position. Measurements: Clinical outcomes (pain intensity, disability and global impression of recovery) will be obtained in assessments that will be performed at 4 weeks and 3 months after randomisation. Analysis: The effects of the intervention will be calculated through linear mixed models following intention-to-treat principles. Discussion: This is the largest study aimed to investigate the hypothesised mechanism behind the Kinesio Taping application in patients with chronic low back pain. The results of this study will contribute to a better understanding about the mechanisms of action of this widely applied therapeutic modality.

Trial registration: Brazilian Registry of Clinical Trials. Registration number: RBR-7ggfkv. Prospective registration: Yes. Funded by: Fundação de Amparo a Pesquisa do Estado de São Paulo (FAPESP), and Conselho Nacional de Desenvolvimento Científico e Tecnológico (CNPq), Brazil. Approval number: FAPESP number 2011/12926-0; CNPq number 470652/2011-0. Anticipated completion: February 2013. Correspondence: Leonardo Oliveira Pena Costa, Rua Cesário Galeno 448, Tatuapé, São Paulo/SP, Brazil 03071-000 Email: lcos3060@gmail.com

Full protocol: Available on the eAddenda at jop.physiotherapy.asn.au

Commentary

Kinesio Taping has become an important adjunct to physiotherapy treatment in recent years, possibly enhanced by images of its use by high profile sports people. However, the evidence supporting Kinesio Taping and its proposed mechanisms of action are nascent and further well-designed, controlled trials are required. This protocol describes a study that will investigate the hypothesised mechanisms that underpin Kinesio Taping, specifically those that suggest creating convolutions in the skin facilitate the effect of taping. Investigation of the mechanism by which a widely applied therapeutic modality may have an effect is worthwhile as it may improve understanding of the condition and highlight additional approaches that may also be effective.

This well-constructed protocol proposes investigating chronic non-specific low back pain with a 4-week intervention and a 3-month follow-up period, with pain, function and perceived effect being monitored. The trial is exposed to some possibility of confounding as the heterogeneity of non-specific low back pain is well known and the participant numbers are small. However this trial may provide guidance to clinical reasoning and improve explanation to patients. This study may show reasons for effectiveness of Kinesio Taping, however large randomised trials of Kinesio Taping compared to sham/placebo control conditions are still needed.

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