

The use of Kinesio taping for managing elbow pain

Submission date 13/02/2017	Recruitment status No longer recruiting	☐ Prospectively registered
		☐ Protocol
Registration date 14/02/2017	Overall study status Completed	☐ Statistical analysis plan
		☒ Results
Last Edited 15/03/2023	Condition category Injury, Occupational Diseases, Poisoning	☐ Individual participant data

Plain English summary of protocol

Background and study aims

Chronic lateral epicondylitis is a long-term condition in which the outer part of the elbow becomes sore and tender. It is often referred to as "tennis elbow" as it often occurs due to strenuous overuse of the muscles and tendons of the forearm and around the elbow joint, such as by playing tennis or other racquet sports. Kinesio taping (KT) is a technique used in physiotherapy in order to help to provide support and stability to muscles and joints, without restricting a person's range of motion. It is commonly used to treat a range of conditions and previous studies have shown that it can be very effective at aiding healing and providing support. The tape is an elastic woven-cotton strip with heat-sensitive acrylic adhesive and can stretch 120%~140% of its original length. The aim of this study is to assess the immediate effect of KT on pain reduction in patients with tennis elbow.

Who can participate?

Adult patients with tennis elbow.

What does the study involve?

Participants attend two sessions spaced three days apart in a random order. In one session, participants undergo 15 minutes of Kinesio taping. This involves having special tape called Kinesio Tex Tape applied to the arm when it is straight at the elbow and bent at the wrist to create tension. In the other session, "sham" tape is applied, which involves ordinary tape being applied while the arm is in a relaxed position. In each session, before and after the taping, participants are asked to rate their pain levels.

What are the possible benefits and risks of participating?

Participants who receive the Kinesio taping may benefit from a reduction of pain. There is a small risk of skin irritation from the tape used.

Where is the study run from?

Wan-Fang Hospital (Taiwan)

When is the study starting and how long is it expected to run for?

February 2016 to February 2018

Who is funding the study?
Wan Fang Medical Center (Taiwan)

Who is the main contact?
Dr Yen-Nung Lin

Contact information

Type(s)
Scientific

Contact name
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Additional identifiers

Protocol serial number
201505008

Study information

Scientific Title
The effectiveness of Kinesio taping on pain reduction in patients with chronic lateral epicondylitis: A randomized, double-blinded, cross-over study

Study objectives
The aim of this study is to compare the effectiveness of Kinesio Taping with Sham Taping on pain reduction and other outcomes for patients with chronic lateral epicondylitis.

Ethics approval required
Old ethics approval format

Ethics approval(s)
The Institutional Review Board of Taipei Medical University, 16/04/2016

Primary study design
Interventional

Study design

Double-blind randomized cross-over trial

Study type(s)

Treatment

Health condition(s) or problem(s) studied

Lateral epicondylitis (tennis elbow)

Interventions

Participants are randomised to receive two taping sessions in a random order by a coin toss. There is a three day wash-out period between the two sessions.

Session 1: Participants receive 15 minutes of Kinesio Taping (KT) using two strips of Kinesio Tex Tape. The main strip is applied along the extensor muscles with the second strip vertical to the first one on the proximal forearm while the elbow is extended and the wrist ulnar is deviated and flexed. The tape is then cut into an Y-shape and the tape head is applied (anchor) at the wrist, stretched slightly with 20% of available tension to the tails, laying down the tape ends with no tension, and applying pressure to the tape surface to initiate adhesion. The anchor of the second strip is applied with no tension below the area of adhesion, at 40% tension to each tail, laid down the ends with no tension, and with pressure applied to the tape surface to initiate adhesion.

Session 2: Participants receive 15 minutes of Sham Taping (ST) using Elastic Adhesive Tape (3M™). The procedure is similar to the KT procedure, except that the wrist is placed in a neutral rather than a flexed position when applying the tape with no tension created.

In each session, before and after the 15 minutes of taping, participants are asked to rate their pain levels using a range of questionnaires.

Intervention Type

Other

Primary outcome(s)

Pain on resisted wrist extension is measured using a numerical rating scale (NRS) before and after 15 minutes of taping in each session.

Key secondary outcome(s)

1. Pain at rest is measured using a numerical rating scale (NRS) before and after 15 minutes of taping in each session
2. Pain-free grip strength is measured using a dynamometer (JAMAR Plus, Patterson Medical, Canada) before and after 15 minutes of taping in each session
3. Pain threshold is measured by applying the 1-cm² rubber probe tip of a digital algometer (Force Ten FDX Force Gage, Wagner Instruments, USA) to the most palpably tender site over the lateral epicondyle before and after 15 minutes of taping in each session

Completion date

17/03/2017

Eligibility

Key inclusion criteria

1. Diagnosed with chronic lateral epicondylitis
2. Visiting the rehabilitation outpatient department of Wan-Fang Hospital
3. Aged 20 to 80 years

Participant type(s)

Patient

Healthy volunteers allowed

No

Age group

Mixed

Sex

All

Total final enrolment

15

Key exclusion criteria

1. Experience with KT treatment previously
2. Received a steroid injection for lateral epicondylitis within the past 3 months
3. Suspected of having elbow arthritis
4. Wounds where the tape is to be applied

Date of first enrolment

16/04/2016

Date of final enrolment

01/03/2017

Locations**Countries of recruitment**

Taiwan

Study participating centre**Wan-Fang Hospital**

No.111, Hsing-Long Road, Section 3

Taipei

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Sponsor information

Organisation

Wan Fang Medical Center

ROR

<https://ror.org/058y0nn10>

Funder(s)**Funder type**

Hospital/treatment centre

Funder Name

Wan Fang Medical Center

Results and Publications**Individual participant data (IPD) sharing plan**

The datasets generated and/or analysed during the current study during this study will be included in the subsequent results publication

IPD sharing plan summary

Other

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Results article		19/06/2018	15/03/2023	Yes	No
Basic results		17/03/2017	23/03/2017	No	No