Could forearm Kinesio Taping improve strength, force sense, and pain in baseball pitchers with medial epicondylitis?

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Abstract

OBJECTIVE:

To determine short-term effects of applied forearm Kinesio Taping (KT) on pain, wrist flexor strength, and force sense for baseball players with medial epicondylitis (ME).

DESIGN:

Case-control repeated measures study.

SETTING:

Clinical sports medicine research laboratory in a medical university.

PARTICIPANTS:

A group of 10 baseball players with ME (ME group) and another group of 17 healthy collegiate athletes (healthy group).

INTERVENTION:

Three taping conditions were applied in both groups: (1) no taping applied, (2) placebo taping applied (PT), and (3) KT applied.

MAIN OUTCOME MEASURES:

Three variables were measured including maximal wrist flexor strength, related/absolute force sense errors, and pain scale (pressure pain and pain tolerance) under 3 taping conditions.

RESULTS:

No significant relationship was found either in maximal wrist flexor strength or in related force sense errors between the 2 groups with taping applied, except absolute force sense errors ($P = 0.037$). Both the healthy group and the ME group in absolute force sense measurement significantly decreased the errors in PT and KT conditions. Also, the tolerance of pressure pain also improved in both the healthy group and the ME group when performing PT and KT conditions.

CONCLUSIONS:

Forearm KT may enhance absolute force sense and improve pain condition for both healthy athletes and athletes suffering from ME when placebo and KT applied. However, KT did not result in significant changes in maximal wrist flexor strength for either group.