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Interesting Articles for KEMA Members

Castro-Sánchez et al. Kinesio Taping in low back pain

Kinesio Taping reduces disability and pain slightly in chronic non-specific low back pain: a randomised trial

Adelaida María Castro-Sánchez[1], Inmaculada Carmen Lara-Palomo[1], Guillermo A Matarán-Peñarrocha[1], Manuel Fernández-Sánchez[1], Nuria Sánchez-Labraca[2] and Manuel Arroyo-Morales[3]

[1]Department of Nursing and Physical Therapy, Universidad de Almería, [2]Andalucian Health Service, Distrito Sanitario de Granada, Granada, [3]Department of Physical Therapy, Universidad de Granada, Spain

Question: Does Kinesio Taping reduce disability, pain, and kinesiophobia in people with chronic non-specific low back pain? **Design:** Randomised trial, with concealed allocation, assessor blinding, and intention-to-treat analysis. **Participants:** Sixty adults with chronic non-specific low back pain. **Intervention:** The experimental intervention was Kinesio Taping over the lumbar spine for one week; the control intervention was sham taping. **Outcome measures:** The following outcomes were measured at baseline, immediately after the week with the tape in situ, and four weeks later: Oswestry Disability Index, Roland-Morris Low Back Pain and Disability Questionnaire, pain on a 10-cm visual analogue scale, Tampa Kinesiophobia scale, trunk flexion range of motion, and the Mcquade test of trunk muscle endurance. **Results:** At one week, the experimental group had significantly greater improvement in disability, by 4 points (95% CI 2 to 6) on the Oswestry score and by 1.5 points (95% CI 0.4 to 2.0) on the Roland-Morris score. However, these effects were not significant four weeks later. The experimental group also had a greater decrease in pain than the control group immediately after treatment (mean between-group difference 1.1 cm, 95% CI 0.3 to 1.9), which was maintained four weeks later (1.0 cm, 95% CI 0.2 to 1.7). Similarly trunk muscle endurance was significantly better at one week (by 23 sec, 95% CI 14 to 32) and four weeks later (by 18 sec, 95% CI 9 to 26). Other outcomes were not significantly affected. **Conclusion:** Kinesio Taping reduced disability and pain in people with chronic non-specific low back pain, but these effects may be too small to be clinically worthwhile. **Trial registration:** ACTRN12612000602842. [Castro-Sánchez AM, Lara-Palomo IC, Matarán-Peñarrocha GA, Fernández-Sánchez M, Sánchez-Labraca N, Arroyo-Morales M (2012) Kinesio Taping reduces disability and pain slightly in chronic non-specific low back pain: a randomised trial. Journal of Physiotherapy 58: 89–95]

Keywords: Low back pain, Taping, Randomized controlled trial, Chronic disease, Physical therapy

Introduction

Low back pain has been a major public health burden for many years, responsible for substantial work disability and elevated healthcare costs. Around 70–80% of adults in the general population are believed to experience at least one episode of low back pain at some time in their lives (Walker et al 2004). Chronic low back pain produces mobility restriction, long-term disabilities, and quality of life impairment and is one of the main causes of work absenteeism (Anderson 1999, Frymoyer and Durett 1997, Ryan et al 2009). Waxman et al 2006). Given its high prevalence, low back pain is considered an important public health problem in many countries and is associated with considerable direct and indirect costs (Cost B13 working group 2006). Estimates of the prognosis of chronic low back pain are based on a limited number of studies. The likelihood of being pain-free 12 months after the onset of chronic low back pain is only 42% (Costa et al 2009), so there is an urgent need for more effective treatments of this condition (Garcia et al 2011).

Numerous treatments for low back pain have been studied, including educational programs (Engers et al 2008), chiropractic therapy (Walker et al 2010), kinesiology (Eardley 2008), exercise (Smeets 2009, Taylor et al 2007, UK Trial BEAM team 2004), health coaching (Ilves et al 2011), spinal manipulative therapy (Ascadeiff et al 2004), medications (Roelofs 2008), and electrotherapy (Djavid et al 2007, Khadilkar et al 2008). Some of these treatments are recommended by the European Guidelines for the Management of Chronic Lower Back Pain, including exercise and educational or cognitive-behavioural programs to encourage activity (Cost B13 working group 2006). Other guidelines also support these interventions, among others (NICE 2009).

Kinesio Taping, developed by Kenzo Kase in the 1970s, is a technique that has been used in the clinical management of

What is already known on this topic: Chronic low back pain restricts mobility, causes long-term disability and impairs quality of life.

What this study adds: In people with chronic non-specific low back pain, Kinesio Tape applied for one week reduces disability and pain, although these effects may be too small to be considered worthwhile. Trunk muscle isometric endurance also improved. Only the effects on pain and isometric endurance were maintained four weeks later.

테이핑 요법

과연 허리 통증 감소에 효과적일까 ?

Kinesio Taping reduces disability and pain slightly in chronic non-specific low back pain: a randomised trial

J Orthop Sports Phys Ther. 2012.

만성 허리 통증
(CHRONIC LOW BACK PAIN)

성인인구의 70-80%는 경험한다는 허리 통증 !!

특히 만성허리 통증은 움직임의 제한(mobility restriction), 오랜시간의 장애(long term disability), 삶의 질에 영향을 미친다.

이 허리통증을 감소 시키기 위해 많은 치료방법들이 연구 되어지고 있다.

그 중 하나가
허리 테이핑 요법 이다.

테이핑(Taping)에는 어떤 효과 들이 있을까?

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Kinesio Taping의 일반적으로 알려진 효과

Kinesio Taping의 효과

1. 근육확동의 정상화
2. 림프와 혈관순환 증가
3. 통증감소
4. 관절의 올바른 배치 유지

테이핑(Taping)을 허리에 작용했을 때 어떠한 효과 들이 있을까 ?

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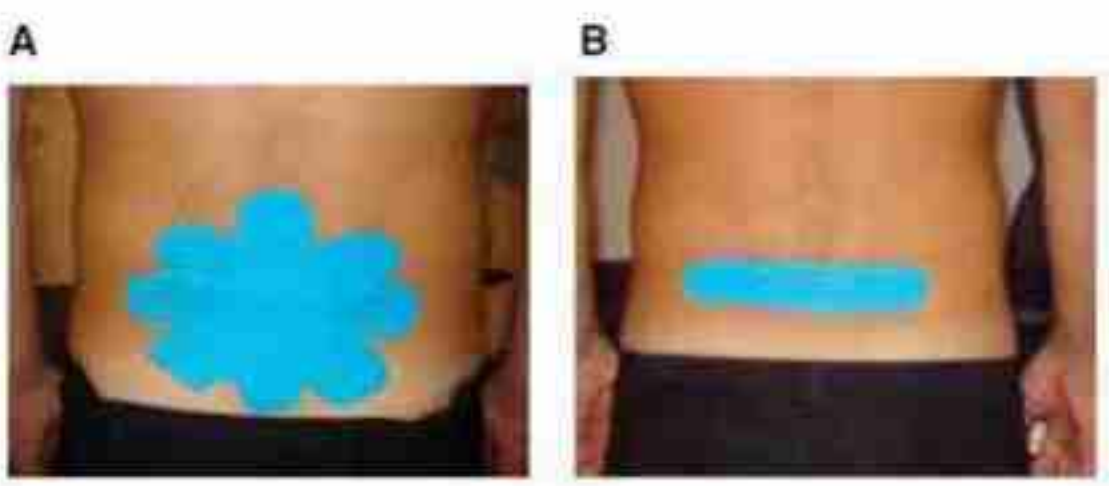
테이핑과 가짜 테이핑을 허리에 적용 해보았다.



방법

만성 허리통증 환자를 Kinesio taping(키네지오 테이핑)을 적용한 그룹 A와 Plasibo taping(가짜 테이핑)을 적용한 그룹 B로 나누었다.

- 테이핑 군 Group A: 4개의 파란색 I-stips가 25% 텐션으로 그림과 같이 별모양으로 가장 통증이 심한 부위에 겹겹이 테이핑을 적용하였다.

- 플라시보 군 Group B: 1개의 같은 테잎의 I-stips가 25% 텐션으로 그림과 같이 한 줄이 가장 통증이 심한 부위에 가로로 적용 되었다.

-두 그룹 모두 7일 동안 적용하도록 하였고 테이핑을 적용하면서의 주의 점을 치료적으로 똑같이 상담 받았다.

*여기서 테이프는 방수로 다공성의 조절가능하며 5cm 넓이의 두께가 0.5mm인 kinesio tape를 사용하였다.

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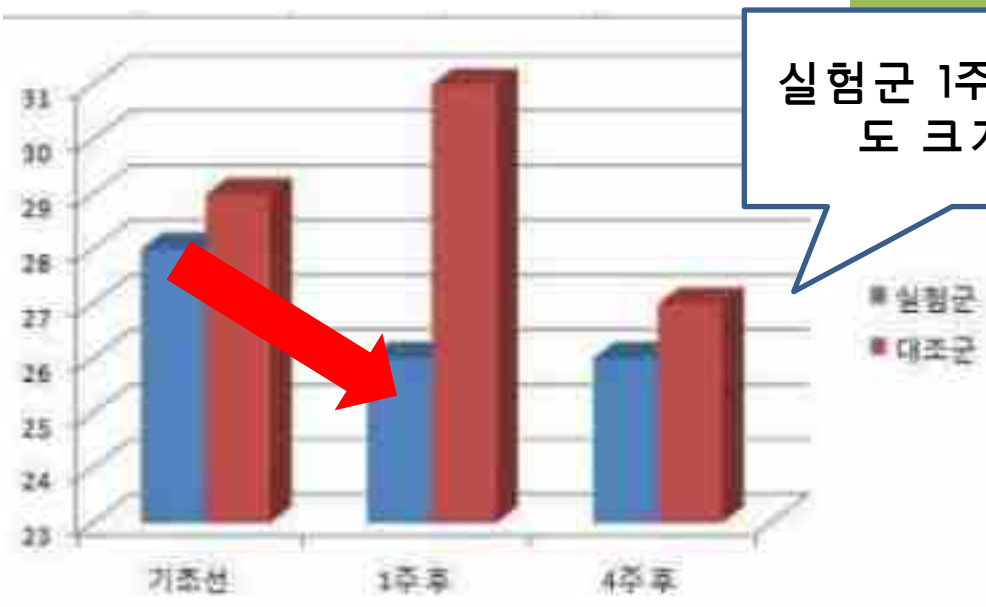
기존 통증에 대한 5가지 결과에 대하여 1주 후와 4주 후로 두 번 측정 하였다.

	Outcome	Groups					
		Baseline		Week 1		Week 5	
		Exp (n = 30)	Con (n = 29)	Exp (n = 30)	Con (n = 29)	Exp	Con
1.	Oswestry Disability Index *(0 to 100)*[a]	28 (3)	29 (3)	26 (3)	31 (6)	26 (3)	27 (6)
	Roland-Morris Disability Questionnaire *(0 to 24)*[a]	10.9 (2.1)	9.8 (2.9)	9.5 (2.1)	9.6 (3.0)	9.8 (2.2)	8.6 (3.0)
2.	Pain visual analogue scale *(0 to 10)*[a]	5.6 (1.8)	5.4 (1.3)	4.2 (1.4)	5.1 (1.4)	4.7 (1.4)	5.6 (1.4)
3.	Tampa Scale for Kinesiophobia *(17 to 68)*[a]	41 (3)	39 (5)	39 (4)	38 (4)	39 (3)	38 (4)
4.	Trunk flexion range of motion *(degrees)*	94 (7)	90 (9)	98 (7)	92 (11)	97 (7)	94 (8)
5.	McQuade test of trunk muscle endurance *(sec)*	41 (18)	49 (19)	54 (16)	39 (20)	49 (17)	39 (18)

1. 장애도 (Disabilty)
1-1.Oswestry Disability index
: 삶의 활동성에서의 제한과 연관된 10가지 문항의 설문



실험군 1주에서 장애도 크게 감소

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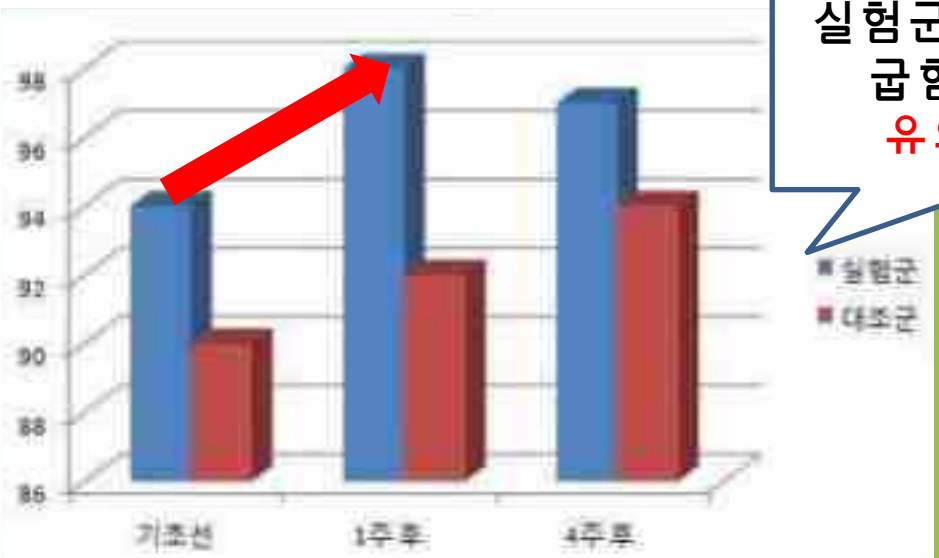
2. 통증(Pain)
VAS(visual analogue scale) : 0-10까지 통증 정도 측정

3. 공포증(Kinesiophobia)
Tampa scale : 얼마나 강하게 거부하는지 ~ 강하게 동의하는지

➡ 유의한 차이가 없었다.

4. 몸통 굽힘 가동범위(Trunk flexion range of motion)
얼마나 몸통을 굽힐 수 있는지



5. 몸통 근육 내구성 (Trunk muscle endurance)
McQuade Test of trunk 몸통 근육의 버팀 정도

➡ 실험군에서 13초 향상.
대조군에서 9초 나빠짐.

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만성 허리 통증을 치료하기 위하여 여러가지 방법들이 알려져 있지만, 이 연구를 바탕으로 만성 허리 통증을 감소 시키려 할 때, 테이핑이 장애도 감소, 통증감소, 가동범위 증진 및 근육 내구성에 도움을 줄 수 있을 것이라고 추천할 수 있을 것이다.

간단한 테이핑으로, 만성 허리 통증을 가진 많은 사람들의 삶의 질을 높여 줄 수 있다.

만성 허리 통증을 감소시키는 방법은 다양하다.

하지만 그것에 간단한 테이핑 적용 된다면,

장애도 감소, 통증감소 가동범위 증진, 근육 내구성 증진에

도움이 될 것이다.

라고 이 논문을 근거로 이야기 할 수 있을 것이다.

-KEMA 책임 연구원 김현아-

-문의사항은 KEMA 홈페이지 기사에 댓글로 남겨주세요-

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