



## Kinesiology taping in cellulite: A proposal for a novel treatment and report of first results

### Plastrowanie kinezyjologiczne na celulit: Propozycja nowej terapii i opis pierwszych wyników

Tomasz Wilk, Magdalena Nieweglowska-Wilk, Radosław Śpiewak

Department of Experimental Dermatology and Cosmetology, Faculty of Pharmacy, Jagiellonian University Medical College, Krakow, Poland

Estetol Med Kosmetol 2012; 2(4): 115-117  
DOI: <http://dx.doi.org/10.14320/EMK.2012.024>

#### Abstract

Kinesiology taping has been used for many years by physiotherapists in orthopaedic, neurological, paediatric, oncological and post-operative physical therapy, as well as in pain management and sports medicine. In the presented article, we propose a novel application of kinesiology taping in the reduction of cellulite. We also describe first observations of the effects of this method in a 32-year-old female patient with first-degree cellulite on the thighs. The tapes were applied on the lateral surfaces of the right thigh, stretching from the hip joint towards the knee, and were kept in this location for 72 hours. After removal of the tapes, both the patient, and the treating cosmetologist and physiotherapist assessed the skin condition in the treated area as clearly improved. We conclude that the use of adhesive elastic therapeutic tape seems a promising method for reducing cellulite. Further controlled studies of an adequately large population of patients with various degrees of cellulite are necessary to confirm these preliminary observations.

**Keywords:** cellulite, physiotherapy, cosmetology, kinesiology taping, elastic therapeutic tape

#### Streszczenie

Plastrowanie dynamiczne czyli kinezyjologiczne (*kinesiology taping*) jest od lat stosowane przez fizjoterapeutów w fizjoterapii ortopedycznej, przeciwbólowej, neurologicznej, pediatrycznej, onkologicznej, pooperacyjnej oraz w medycynie sportowej. W niniejszym artykule przedstawiamy nowatorskie zastosowanie plastrowania w redukcji celulitu. Opisujemy ponadto pierwsze obserwacje efektu tej metody u 32-letniej pacjentki z celulitem pierwszego stopnia w okolicach bocznych ud. Elastyczne taśmy terapeutyczne zostały naklejone na bocznej powierzchni uda, od stawu biodrowego w kierunku kolana i pozostawione na 72 godziny. Po odklejeniu taśm zarówno pacjentka, jak i kosmetolog oraz fizjoterapeuta stwierdzili wyraźną poprawę stanu skóry. Na podstawie przedstawionych obserwacji wyciągamy wniosek, że plastrowanie kinezyjologiczne może być obiecującą metodą redukcji celulitu. Dla potwierdzenia tej wstępnej obserwacji niezbędne będzie podjęcie dalszych, kontrolowanych badań dużej grupy pacjentów z celulitem o różnym stopniu zaawansowania.

**Słowa kluczowe:** celulit, fizjoterapia, kosmetologia, plastrowanie dynamiczne, plastrowanie kinezyjologiczne, kinesiology taping, elastyczne taśmy terapeutyczne

Copyright © 2012 the Authors (text) and Radosław Śpiewak (layout & journal compilation). All rights reserved.

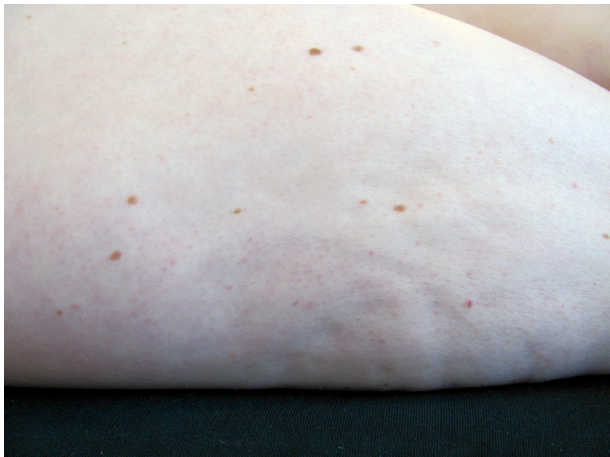
Kinesiology taping is a therapeutic method developed in the 1980s by Dr. Kenzo Kase, a Japanese chiropractor and acupuncture practitioner. The method is based on taping the surface of selected parts of the body with adhesive cotton strips of 130-140% elasticity. The tapes are waterproof and do not contain any active ingredients. Their structure (wave structure) allows the skin to breathe and does not restrict the body's range of movement. This method is consistent with the principles of kinesiology and is designed to facilitate the body's natural healing process [1]. This technique is believed to help in eliminating lymphatic oedema by improving blood and lymph circulation, reducing tissue stasis and tissue inflammation. Patches should also normalize muscle and fascial tone and reduce pain sensation [2]. This method is widely used in rehabilitation. It is most commonly used for kinesiotherapeutic analgesic applications in spinal pain syndromes, and in the treatment of painful conditions of the shoulders and

knees. It is also frequently used to treat joint instability, tendon and muscle damage, and pain following sprains, strains and dislocations. The proponents of kinesiology taping claim that it also supports healing processes after surgical interventions and provides help in correcting bad posture. Furthermore, the method is applied in the treatment of such conditions as scars, oedema and exudation, and in the reduction of risk of injury in professional athletes [3]. To date, despite the widespread use of this method, kinesiology taping has not been used in the treatment of cellulite.

#### Case report

A 32-year-old female patient with visible cellulite underwent a routine cosmetology consultation. An experienced cosmetologist diagnosed the patient with the first degree of cellulite on the lateral sides of the thighs (fig. 1). After excluding contraindications, an expe-

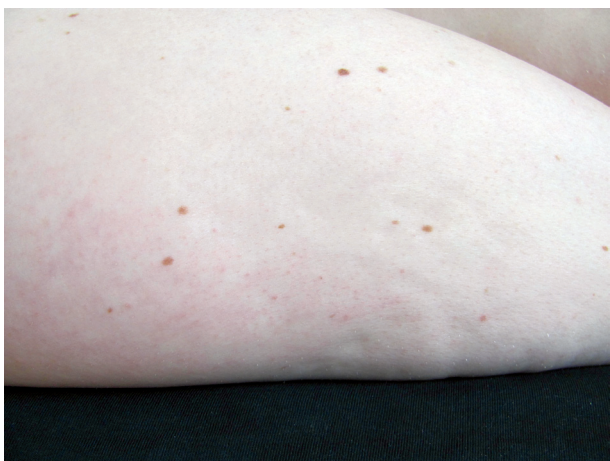
rienced physiotherapist applied the kinesiology taping (Kinesio® tape). The patient was taped at the site of present cellulite, i.e. on the right thigh along the lateral surface, with the tapes stretching from the hip joint to the knee (fig. 2).



**Figure 1.** Lateral side of the right thigh before application of kinesiology taping



**Figure 2.** Application of elastic therapeutic tapes (Kinesio® tapes)



**Figure 3.** Treated area 72 hours after removal of elastic therapeutic tapes

The opposite thigh was left untreated for comparison. The patient reported a sensation of heat, pulling and tightening in the area throughout the whole time of the treatment, most pronounced in the first 24 hours. After

72 hours, the tapes were removed and the patient was examined again by the same cosmetologist and physiotherapist. The patient and both specialists found a considerable improvement in the skin at the site of tape application. The skin seemed better supplied with blood, more elastic, supple and firm, while cellulite seemed less visible than before the procedure. This effect was still visible after the subsequent 3 days (fig. 3). No change was noted on the untreated control side.

## Discussion

Cellulite is a non-inflammatory dystrophy of subcutaneous tissue. This condition affects most commonly the thighs, lower legs, arms and abdomen [4]. Cellulite develops in four stages: Stage 0 – the surface of the skin remains smooth; however, a slight "orange-peel" effect becomes visible when the skin is pinched gently between forefinger and a thumb. Stage I - there is a slight fibrosis of the subcutaneous tissue and when the pinch test is applied, a lumpiness or unevenness of the skin surface can be noticed. The surface effects are minimal, yet the "orange peel" look of the skin can easily be detected. Stage II - the symptoms exacerbate, there is a significant subcutaneous fibrosis and small nodules are palpable under the skin surface. The skin appears tethered and puckered without pinching. Stage III (final stage) is marked by hard palpable nodules of collagen in the dermal region, which may press on nerve fibres and capillaries, causing pain. The surface displays considerable unevenness, and can easily bruise when pressed or pinched [5]. Among many possible factors that may be responsible for the development of cellulite are circulatory disturbances, flaccidity of connective tissue and disorders of the lymphatic system.

## Conclusions

Despite substantial research efforts and numerous products released each year, there is still a need for a safe and effective method for treating cellulite. We believe that elastic therapeutic tapes may fill the present gap in cellulite reduction. The presented paper marks the beginning of systematic, controlled research for the safety and effectiveness of kinesiology taping in the treatment of cellulite that will be continued by our team.

## References

1. Karatas N, Bicici S, Baltaci G, Caner H: The effect of Kinesiotape application on functional performance in surgeons who have musculo-skeletal pain after performing surgery. *Turk Neurosurg* 2012;22(1):83-9.
2. Gonzalez-Iglesias J, Fernandez-de-Las-Penas C, Cleland JA, Huijbregts P, Del Rosario Gutierrez-Vega M: Short-term effects of cervical kinesio taping on pain and cervical range of motion in patients with acute whiplash injury: a randomized clinical trial. *J Orthop Sports Phys Ther* 2009; 39(7):515-21.

3. Huang CY, Hsieh TH, Lu SC, Su FC: Effect of the Kinesio tape to muscle activity and vertical jump performance in healthy inactive people. *Biomed Eng Online* 2011;10:70.
4. Rawlings AV: Cellulite and its treatment. *Int J Cosmet Sci* 2006;28(3):175-90.
5. de Godoy JM, de Godoy Mde F: Evaluation of the prevalence of concomitant idiopathic cyclic edema and cellulite. *Int J Med Sci* 2011;8(6):453-5.

#### **Financing and conflict of interest**

The authors declare no conflict of interest with regard to the present article.

#### **Address for correspondence**

mgr Magdalena Nieweglowska-Wilk  
Department of Experimental Dermatology  
and Cosmetology  
Jagiellonian University  
ul. Medyczna 9, 30-688 Krakow, Poland  
Tel.: +48 12 620 58 30, Fax: +48 12 620 56 45  
E-mail: magdalena.nieweglowska-wilk@uj.edu.pl

*Submitted: 17 May 2012*

*Accepted: 4 October 2012*