



Efficiency of Kinesio Taping in Adolescents with Cervicogenic Headache: a Blind Placebo-Controlled Study

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Published online: 5 February 2018

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Abstract

The research covered 101 adolescents aged 14–16 years with cervicogenic headache (CHA) caused by myogenic trigger zones (MTZ) in the neck muscles. The research aims at estimation of elastic kinesio taping effectiveness in the treatment of myogenic CHA in adolescents. Patients were divided into three groups: 34 teenagers (Group A) were treated with kinesio tapes, 34 teenagers (Group B) received placebo—the simulation of kinesio tapes with a non-elastic medical hypoallergenic plaster (similar to the width of elastic tapes), 33 teenagers (Group C) were prescribed physical exercises for 20 min for the formation of correct motor stereotype. All indicators were evaluated before treatment (Eval-1), immediately after 1 month of treatment (Eval-2) and 1 month after treatment (Eval-3). At Eval-2 in Group A, there were observed statistically significant decrease in the number of days with a headache and headache intensity, and also increase in pain thresholds. In Groups B and C, there were no statistically significant changes in the indices compared to the Eval-1. At Eval-3 in the Group A, there was recorded positive dynamics in the studied indicators. In Group C, there was a positive statically significant dynamics, in comparison with Eval-1. There were no statistically significant changes in the patients of Group B. Group A in all indicators was statistically significant superior to the results of B and C. The authors conclude that kinesio taping is effective in treating myogenic CHA in the presence of an upper cross syndrome of muscle imbalance in adolescents.

Keywords Headache · Cervicogenic headache · Kinesio taping · Myogenic trigger zones · Adolescents

1 Introduction

Headache is one of the most common medical problems in adolescents. At the age of 7–16, its frequency can vary from

26 to 69% [1–4]. Cervicogenic headache (CHA) is defined as a headache caused by the pathology of the neck area, including bones, muscles, and other soft tissues. In the International Classification of Headache Disorders (ICHD, 3rd edition) [5], the criteria for CHA are the following:

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Electronic supplementary material The online version of this article (<https://doi.org/10.1007/s12668-018-0506-7>) contains supplementary material, which is available to authorized users.

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- A. Any headache fulfilling criterion C.
- B. Clinical, laboratory, and/or imaging evidence of a disorder or lesion within the cervical spine or soft tissues of the neck which are able to cause headache.
- C. Evidence of causation demonstrated by at least two of the following:

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1. headache has developed in temporal relation to the onset of the cervical disorder or appearance of the lesion;
2. headache has significantly improved or resolved in parallel with improvement in or resolution of the cervical disorder or lesion;
3. cervical range of motion is reduced and headache is made significantly worse by provocative maneuvers;