

5 - MANUAL THERAPY ON TENSION HEADACHES

NATHALIA RAMOS FERREIRA
Centro Universitário Catarinense – FACVEST
Lages/SC/Brasil
nathalia.86@hotmail.com

INTRODUCTION

The prevalence of headache is demonstrated by several studies worldwide. These show a high incidence in men and women of all ages. Headache is a symptom frequently encountered in clinical practice, representing one of the most common complaints of many people. It is estimated that 80% of the population will suffer from headache in a certain phase of life. Epidemiological studies of headache have been conducted in order to recognize and improve its characteristics for a better understanding of pathophysiological (ZÉTOLA et al., 1998).

The attacks vary in pain intensity, associated symptoms and frequency of seizures. Among the accompanying symptoms, nausea, vomiting, blurred vision and photo and / or phonophobia are more common in women, while men in the visual auras and somatosensory are more common. Thus, the high incidence of the disease has become a major public health problem, affecting thousands of people and, consequently, the quality of life (ZÉTOLA et al., 1998).

There are also some activities that may aggravate or trigger a tension headache as well as to maneuver the car, reading, writing, knitting, driving long distances (a combination of poor posture while driving / absence of cervical support), hang clothes in, wash their hair in the salon (AMARAL, 2009).

In addition, Bacheschi, (1991) cites the psychological causes: he describes himself as a "character migraines" whose particular traits would be perfectionism, rigidity, ambition. In this sense, several studies aimed at the treatment of headache has also been developed, ranging from drug treatments, analysis of the individual sleep, minimizing the stress of day-to-day, among others. Thus, this study will seek to present the main techniques of physical therapy focused on manual therapy in tension headache, through literature.

The tension-type headache, the pain may last from 30 minutes to 7 days, with tightness bilaterally with mild or moderate intensity without aggravating. May be accompanied by photophobia or phonophobia, without the presence of nausea, gerelmente triggered by stress, anxiety and muscle tension. In the migraine painful period is 4 to 72 hours, throbbing and pulsating type in only one side of the head, intense, and aggravated by physical activity or effort. There may be signs of photophobia or phonophobia accompanied by nausea and vomiting, resulting from changes in sleep, caffeine, red wine, prolonged fasting, hormonal changes and stress.

Clinical picture in tension headache can present from a feeling of heaviness, pressure and tightness in the head, sudden twinges of pain on one side or the whole head, the muscles of the back of the neck are stiff and painful palpation, the movements become limited creating a problem for carrying out activities of daily living, bowel problems, irritability, fatigue, restless sleep and mood swings; throbbing pain predominantly temporal, frontal, occipital, and bilateral joined variable frequency and may appear "in pictures" (any time of day) and duration of a few hours or days (BACHESCHI, 1991).

According to Amorim (2010) Manual therapy is a set of techniques applied through the hands of the therapist, including mobilization and muscle and joint manipulations, which have been applied by physical therapists, chiropractors and osteopaths.

Therefore, we need to check the effects of manual therapy in the treatment of patients with tension-type headache.

REVIEW OF LITERATURE

Tension Type Headache

The headache is characterized by pain in the head, which is classified in different ways, such as throbbing, under pressure, twinges, among others, and depending on the situation can be unbearable. It has a range of etiologies and presents a range of variations including migraine, cluster headache, cervicogenic headache, and was therefore found by the ways of headache medicine 150 on average, one of them is the type headache (TTH), considered the "variant most common of all headaches (HALAL; FERNANDES, 1996).

The headaches are referred pain to the head surface from deep structures. It is a common symptom in medical care. Women are most affected, both in numbers and intensity of pain episodes. In general, the migraine-type headaches account for 25% of patient visits with this complaint, and acute infections such as influenza, bacterial and viral infections, other 25%. Of the remaining cases, the vast majority are so-called tension headache, associated with emotional disturbances defined. In less than 1% of cases the headache is associated with significant intracranial diseases such as brain tumors or infections, or hypertension (HALAL; FERNANDES, 1996).

The type headache (TTH) is classified as a primary type headache, ie, not due to structural disorder evident, may appear in the form episodic type which has the highest prevalence, in which the patient feels less pain during head 15 days per month, but not less than 10 days, or chronic, when pain is present for at least 15 days per month for at least 6 months (AMORIM; DAHER, 2010).

Bacheschi (1991) states that the main trigger factors are emotional, it is common to the onset of headache during a day of tension above normal. Frequent headaches in order to record, whether at work or school. It can also be triggered by physical exertion, or situations that require prolonged muscle contraction as visual efforts, driving vehicles or face other stressful situations.

As Moretto (2004), we can also cite the functional needs of the masticatory apparatus which are basically chewing, swallowing and phonetics, while parafunctional activities are prolonged muscle contractions, clenching and bruxism, habits such as biting the lips or objects, thumb sucking, nail biting, chewing objects, stem glasses, pipe, abnormal posture craniocervicofacial among others. These activities are so named because they have no functional purpose, therefore, these disorders cause or may cause hyperactivity of the entire masticatory muscles who becomes stiff and painful, therefore this pain and stiffness, are reflected to the muscles of the head, neck, neck, shoulder girdle, causing tension headache, feeling of tightness or pressure.

The pain of tension headache is described variously. More commonly the patient complains of a constant feeling of

pressure around the head, or as if the head is being compressed in a certain way, not being pulsed, extending to the neck and shoulders. It is common for patients to describe a stiff neck, stiff and sometimes complain of painful nodules in the sensitive muscles of the neck. The pain may be buoyant, with frequent changes in location or intensity of recurrences, or located in a single region. With the most common locations regions like the frontal, temporal or frontotemporal (NITRINI; BACHESCHI, 2005).

A tension headache is the most common type of headache in the general population. As in migraine, it affects more women than men, and onset age of the first crisis takes place, usually after age 20 (HALAL; FERNANDES, 1996).

In the view of Friedman (1986), we can classify cases of headache in two large groups. One covers the reicidivante chronic headache, the headache of vascular origin of migraine, the type due to muscle contraction (tension headache), or a combination of both. In cases that headache is the only complaint, the diagnosis should be based on correct interpretation of history. The second group comprises the headaches due to intracranial lesions, as well as local affections of the eyes. The diagnosis of cases in this category is mainly based on physical examination and the information provided by additional tests.

According to Halal and Fernandes (1996), the symptoms are related to psychological factors and muscle contraction. It is believed that headache is a somatic effect of coexisting psychosocial stress in the patient's life, even if it can not be identified. Both the increase of muscle tension and stress are not specific precipitating factors, as both are common for tension headache and migraine.

Physical therapy includes a vast area of therapeutic approaches for the promotion of rehabilitation, and it operates among other systems, the musculoskeletal system. One of the techniques proposed treatment is pompage held in this system, in order to provide pain relief in patients. The pompage is a manual therapy technique that, according to Bienfait (1999), pulls slowly and progressively regulate a body segment, providing the elongation of the structures involved, stimulating the circulation of fluids and, consequently, promoting a release of tension in affected muscles. Thus, this study is justified by the need to provide pain relief, thus improving the quality of life of patients with headache. The results demonstrated an pompage satisfactory, becoming, therefore, that this feature can be used by physiotherapists.

Lederman (2001) states that the continuous and intermittent manual pressure on the tendons decreases the excitability of the motor neuron. It is likely that the inhibition observed in these studies were related to activation of cutaneous afferents rather than muscle receptors. Although the author applied firm massage on the muscle belly also shown to decrease the excitability of the motor neuron temporarily. We used two intensities of massage intensity strong and produced a greater inhibition. When observed the effects on hand motor neuron excitability when performed muscle stretching, it was noted by a study group that the excitability of motor neurons that innervate the stretched muscle is reduced in the same way that the slip on the manual muscle also reduces motor neuron excitability.

The methodology was characterized as an exploratory research and literature, through scientific and theoretical articles. For Gil (1999), exploratory research aimed at providing greater familiarity with the problem, in order to make it more explicit hypotheses or building. You could say that these studies have as main objective the improvement of the discovery of ideas or intuitions.

As for the means of research, the research was highlighted as literature. To Mattar (2001), this research covers all means of bibliography published in relation to the subject of study from spare publications, newsletters, newspapers, magazines, books, research monographs, theses, etc..

Data collection occurred through secondary sources. Secondary data were collected through web sites, bibliographies, journals in the area, newspapers, among others. (MATTAR, 2001).

RESULTS

Among the therapies for CTT, have pharmacologic therapies that use of muscle relaxants, analgesics and antidepressants, so this is also the association of non-drug therapies such as psychotherapy, relaxation techniques and mental body, biofeedback, acupuncture and physical therapy through the techniques of electrotherapy, thermotherapy, manual therapy (RABELLO; FORTE; GALVÃO, 2000).

Manual therapy is a set of techniques applied through the hands of the therapist, these mobilizations and manipulations include muscle and joint pain. The manual therapy techniques as a form of sensory stimulation, act directly on skeletal muscle innervation, held by the muscle spindle. The sensory organ of the muscle is the muscle spindle, consisting of muscle fibers and sensory endings. The spindle sensory endings respond to stretch, that is, changes in muscle length and velocity variations that occur. The fast and tonic stretch zone is recorded by the type Ia afferent tonic stretch is monitored by afferent type II (ERDMAN, 2000).

Reference Domenico and Wood (1998) a series of techniques that can be used to treat tension headaches, among them deep smoothing massage of the back, kneading finger on the upper fibers of trapezius, digital smoothing on the upper fibers of trapezius, kneading on the scapular region.

The application of pure therapeutic massage trigger points in adults with CTT was studied by Moraska and Chandler, 2008, and found these interesting results to reduce the frequency, intensity and duration of pain. These three indices were also evaluated by Von Stülpnagel et al. In 2009, that just as in the previous study sought to determine the effect of treatment with a focus on the trigger point in nine female children with CTT, ages 5 and 15 years, obtaining good results in the indices, without side effects, besides being a good acceptance in the treatment of children and youth (AMORIM; DAHER, 2010).

Rebelatto and Morelli (2007) conducted a study with six patients, divided into two groups: one in patients with degenerative cervical spine and other individuals not suffering from cervical degeneration. We used a protocol consisting of cervical traction, stretching bilateral vertebral mobilization and classic massage sessions for 10 and obtained an effective result in the two groups.

These studies concluded that we can verify that the treatment protocol for manual therapy was effective in relieving tension headaches and an increase in pressure pain threshold of individuals observed.

Giona (2003) developed a study of eight female subjects suffering from tension headache underwent a treatment protocol consists of the following manual therapy techniques: tissue massage, mobilization of the dorsal vertebrae, pompage cervical, upper trapezius stretch bending lateral stretching of the posterior muscles of the neck, pompage suboccipital muscles (inhibition of suboccipital) stretching of soft tissue structures suboccipital extensors of the head. Obtained as a result the decrease in frequency, intensity and duration of pain caused by headache attacks with cases of complete remission of painful symptoms. The results of this study showed that manual therapy may be effective in the treatment of headache on both a single option as adjunctive treatment.

Complementing these results, the study by Macedo et al. (2007), which aimed to investigate the effectiveness of manual therapy skull on the intensity, frequency and duration of pain, and the quality of life and depression in 37 women with chronic migraine, randomly divided into 2 groups (treatment and control) for 10 treatment sessions, with a frequency of 2 times

per week lasting about 30 minutes through a treatment protocol consisting of strapping cervical (pompagem global and chest pompagem of the trapezius and suboccipital) and manual operation applied on the skull (compression maneuvers and removal of the frontal bone, temporal, parietal and occipital), in which they respect the principles of cranial osteopathy. It has been demonstrated by comparing the results between the groups that the group submitted to physical therapy, manual obtained a significant reduction in intensity, frequency and duration of pain caused by headache attacks, as well as favorable results as to the improved quality of life and of depression. It was shown that manual therapy techniques used were helpful in treating chronic headache as an adjunct method of treatment.

Reference Ribeiro, et al (2006) that the techniques for handling pain are used to brief relaxation and progressive muscle relaxation, which encourages a voluntary and gradual increase of tension in muscle groups in order to induce spontaneous decrease in muscle tension them. They are also used in some centers and stretches muscle relaxation induced by imagination (for example, imagine you are on a beach), for recorder (phrases are recorded by the therapist in which it encourages the patient to stay calm and relaxed) or even teaching of sentences that the patient remembers and recalls in stressful situations, and also by abdominal breathing that can be associated with the foregoing.

Thus, the above studies the authors point out that the manual therapy techniques used in the treatment of headache provide improved clinical course of patients treated by relieving and / or reducing the intensity, frequency and duration of pain with consequent improvement in quality of life the patients.

CONCLUSION

Currently, the headache has been one of the symptoms that most affect individuals at different ages. Establishing and maintaining erroneous postures combined with the fast pace daily, anxiety, depression or even to other diseases that cause excessive contraction of neck muscles that cause pain, are considered etiological factors in the determination of this type of headache.

The use of manual therapy as adjuvant treatment for headaches usually shows evidence of improvement. Its use is justified on the basis of the claim that the tension could contribute to cranial nerve compression, thus restoring the mobility of cranial tissues would allow homeostatic mechanisms to balance the membrane tension, improve venous flow, reduce nerve compression and hence the pain.

Through this study, we observed that physical therapy, particularly with a focus on manual therapy can be effective in the treatment of tension headache, and may be considered a form of treatment. The results of therapy in cases of crises tension-type headache are increasingly accepted and proven by serious scientific studies of various national and international institutions is expanding the role of these professionals, as well as leading to a better condition and quality of life their patients.

REFERENCES

1. AMARAL, A. V. **O estresse e os benefícios da massagem**. Fisio Viatae Escola de Massoterapia e terapias Naturais Ltda. Florianópolis 2009.
2. AMORIM, E. C. O.; DAHER, C. R. M. Efeitos da terapia manual no tratamento da cefaléia tipo tensional: uma revisão de literatura. **Revista Inspirar: Movimento & Saúde**, v.2, n.2, p.11-5, mar./abr. 2010.
3. BACHESCHI, L. A. Cefaléias. In: NITRINI, R.; BACHESCHI, L. A. **A neurologia que todo médico deve saber**. São Paulo: Santos Maltese, 1991, p. 213-221.
4. BIENFAIT, M. **Fâscias e pompagens: estudo e tratamento do esqueleto fibroso**. 2.ed. São Paulo: Summus, 1999.
5. BOIGEY, E. C. **Manual de massagens**. 5.ed. São Paulo: Masson, 1986.
6. DOMENICO, G.; WOOD, E. C. **Técnicas de massagens de Beard**. 4.ed. São Paulo: Manole, 1998.
7. ERDMAN, L. L. **Neurociência: fundamentos para a reabilitação**. Rio de Janeiro: Guanabara Koogan, 2000.
8. FRIEDMAN, A. P. Cefaléia. In: ROWLAND, L. P. **Tratado de neurologia**. 7.ed. Rio de Janeiro: Guanabara Koogan, 1986.
9. GIL, A. C. **Como elaborar projetos de pesquisa**. 3.ed. São Paulo: Atlas, 1999.
10. GIONA, P. **Abordagem fisioterapêutica nas cefaléias tensionais através da terapia manual: série de casos**. 86 f. Monografia (Bacharel em Fisioterapia), Universidade Estadual do Oeste do Paraná, 2003.
11. HALAL, I. S.; FERNANDES, J. G. Cefaléia. In: DUNCAN, B. B.; SCHIMDT, M. I.; GUGLIANI, E. R. J et al. **Medicina ambulatorial: condutas clínicas em atenção primária**. 25.ed. Porto Alegre: Artmed, 1996.
12. LEDERMAN, E. **Fundamentos da terapia manual: fisiologia, neurologia, psicologia**. São Paulo: Manole, 2001.
13. MACEDO, C. S. G. et al. Eficácia da terapia manual craniana em mulheres com cefaléia. **Fisioterapia e Pesquisa**, São Paulo, v.14, n.2, p. 14-20, 2007.
14. MATTAR, F. N. **Pesquisa de marketing**. 2.ed. São Paulo: Atlas, 2001.
15. MORELLI, J. G. S.; REBELATTO, J. R. A eficácia da terapia manual em indivíduos cefaleicos portadores e não-portadores de degeneração cervical: análise de seis casos. **Rev. Bras. Fisioter.**, São Carlos, v.11, n.4, p.325-329, jul./ago. 2007.
16. MORETTO, L. C. **Massagem endobucal em paciente com cefaléia de tensão**. Tubarão, 2004.
17. NITRINI, R.; BACHESCHI, L. A. **A neurologia que todo médico deve saber**. 2.ed. São Paulo: Atheneu, 2005.
18. RABELLO, G. D.; FORTE, L. V.; GALVÃO, A. C. R. Avaliação clínica da eficácia da combinação paracetamol e cafeína no tratamento da cefaléia tipo tensão. **Arq. NeuroPsiquiatr.**, São Paulo, v.58, n.1, p.90-8, mar. 2000.
19. RIBEIRO, C. A. F.; ESPERANÇA, P.; SOUSA, L. D. Cefaléia tipo tensão: fisiopatogenia, clínica e tratamento. **Rev. Port. Clin. Geral**, n.22, p.483-490, 2006.
20. ZÉTOLA, V. H. et al. Incidência de cefaléia em uma comunidade hospitalar. **Arq. NeuroPsiquiatr.**, São Paulo, v.56, p.559-64, 1998.

Rua: Lauro Muller, nº 69, Centro.
 CEP: 88501-130 - Lages/SC/Brasil
 E-mail: nathalia.86@hotmail.com

MANUAL THERAPY ON TENSION HEADACHES**ABSTRACT**

The high prevalence of headache is demonstrated by several studies worldwide. These show a high incidence in men and women of all ages. Headache is a symptom frequently encountered in clinical practice, it is estimated that its prevalence suggests that 80% of the population will suffer from headache in a certain phase of life. Currently, one can find various treatments that seek to alleviate the headache due to the high incidence in the population. Manual therapy is a set of techniques applied through the hands of the therapist, including mobilization and muscle and joint manipulations, which have been applied by physical therapists, chiropractors and osteopaths. The use of manual therapy as adjuvant treatment for headaches usually shows evidence of improvement. The methodology was defined as an exploratory research and literature, through scientific and theoretical articles. The research showed that manual therapy techniques used in the treatment of headache provide improved clinical course of patients treated by relieving and / or reducing the intensity, frequency and duration of pain with consequent improvement in quality of life of patients treated.

KEYWORDS: Headache, Tension Headache, Manual Therapy.

THÉRAPIES MANUELLES POUR DES CÉPHALÉES PAR TENSION**RÉSUMÉ**

La prévalence élevée de maux de tête est démontrée par plusieurs études dans le monde entier. Ceux-ci montrent une incidence élevée chez les hommes et les femmes de tous âges. Maux de tête est un symptôme fréquemment rencontré en pratique clinique, il est estimé que sa prévalence suggère que 80% de la population souffrira de maux de tête dans une certaine phase de la vie. Actuellement, on peut trouver divers traitements qui visent à alléger les maux de tête dus à la forte incidence dans la population. La thérapie manuelle est un ensemble de techniques appliquées par les mains du thérapeute, y compris la mobilisation et de muscle et de manipulations conjointes, qui ont été appliquées par les physiothérapeutes, les chiropraticiens et les ostéopathes. L'utilisation de la thérapie manuelle comme traitement adjuvant pour les maux de tête montre habituellement des signes d'amélioration. La méthodologie a été définie comme une recherche exploratoire et la littérature, à travers des articles scientifiques et théoriques. La recherche a montré que les techniques de thérapie manuelle utilisée dans le traitement des céphalées assurer une meilleure évolution clinique des patients traités par la relaxation et / ou en réduisant l'intensité, la fréquence et la durée de la douleur avec une amélioration conséquente de la qualité de vie des patients traités.

MOTS-CLÉS: Maux de Tête, Céphalée de tension, Thérapie manuelle.

TERAPIA MANUAL EN CEFALÉAS TENSIONALES**RESUMEN:**

La alta prevalencia de dolor de cabeza es demostrado por estudios en todo el mundo varios. Estos muestran una alta incidencia en los hombres y mujeres de todas las edades. La cefalea es un síntoma frecuente en la práctica clínica, se estima que su prevalencia indica que el 80% de la población sufrirá de dolor de cabeza en una cierta fase de la vida. En la actualidad, uno puede encontrar diversos tratamientos que tratan de aliviar el dolor de cabeza debido a la alta incidencia en la población. La terapia manual es un conjunto de técnicas aplicadas por las manos del terapeuta, incluida la movilización y el músculo y las manipulaciones de las articulaciones, que se han aplicado por fisioterapeutas, quiroprácticos y osteópatas. El uso de la terapia manual como tratamiento adyuvante para los dolores de cabeza por lo general muestra signos de mejoría. La metodología se define como una investigación exploratoria y la literatura, a través de artículos científicos y teóricos. La investigación demostró que las técnicas de terapia manual para el tratamiento del dolor de cabeza proporcionan mejor evolución clínica de los pacientes tratados por el alivio y / o la reducción de la intensidad, frecuencia y duración del dolor con la consecuente mejora en la calidad de vida de los pacientes tratados.

PALABRAS CLAVE: Dolor de cabeza, De cabeza por tensión, Terapia Manual.

TERAPIA MANUAL EM CEFALÉIA DE TENSÃO**RESUMO**

A alta prevalência da cefaléia é demonstrada por vários estudos mundiais. Estes mostram a alta incidência em homens e mulheres, de todas as faixas etárias. A cefaléia é um sintoma frequentemente encontrado na prática clínica; estima-se que a sua prevalência sugere que 80% da população irá sofrer de dor de cabeça em uma determinada fase da vida. Atualmente, pode-se encontrar diversos tratamentos que buscam amenizar a dor de cabeça, devido à alta incidência na população. A terapia manual constitui um conjunto de técnicas aplicadas através das mãos do terapeuta, que incluem mobilizações e manipulações musculares e articulares, que vêm sendo aplicadas por fisioterapeutas, quiropatas e osteopatas. O uso de terapia manual como tratamento coadjuvante para cefaléias em geral apresenta evidências de melhora. A metodologia foi definida como sendo uma pesquisa exploratória e bibliográfica, por meio de artigos científicos e referencial teórico. A pesquisa realizada mostrou que as técnicas de terapia manual empregadas no tratamento da cefaléia proporcionam melhora do quadro clínico dos pacientes atendidos através do alívio e/ou redução da intensidade, frequência e duração da dor com consequente melhora da qualidade de vida dos pacientes atendidos.

PALAVRAS-CHAVE: Cefaléia, Cefaléia Tensional, Terapia Manual.