Miszewski Waldemar, Miszewska Agnieszka, Śniegocki Maciej, Siedlecki Zygmunt, Grzyb Sebastian, Siminska Joanna, Pietkun Katarzyna, Głowacka Iwona, Nowacka Krystyna, Hagner Wojciech. The comparison of the therapeutic massage with the craniosacral method in treating the pain syndrome of the cranial part of the spine. Journal of Education, Health and Sport. 2016;6(4):249-270. eISSN 2391-8306. DOI http://dx.doi.org/10.5281/zenodo.50158
http://ojs.ukw.edu.pl/index.php/johs/article/view/3467

The journal has had 7 points in Ministry of Science and Higher Education parametric evaluation. Part B item 755 (23.12.2015).
755 Journal of Education, Health and Sport eISSN 2391-8306 7

The authors declare that there is no conflict of interests regarding the publication of this paper.
Received: 20.03.2016. Revised 17.04.2016. Accepted: 17.04.2016.

The comparison of the therapeutic massage with the craniosacral method in treating the pain syndrome of the cranial part of the spine

Waldemar Miszewski[1], Agnieszka Miszewska[3], Maciej Śniegocki[2], Zygmunt Siedlecki[2], Sebastian Grzyb[2], Joanna Siminska[1], Katarzyna Pietkun[1], Iwona Głowacka[1], Krystyna Nowacka[1], Wojciech Hagner[1]

1 Department of Rehabilitation CM UMK Bydgoszcz
2 Department of Neurosurgery, Neurotraumatology and Pediatric Neurosurgery
3 University of Bydgoszcz, Bydgoszcz

Key words: classic massage, craniosacral therapy, pains, of the cervical part of the spine.

Summary

Massage has been used for several thousand years at least, aiming at relief in suffering and decreasing all kinds of ailments, including health problems with the cervical vertebrae.

Craniosacral therapy is quite a new method of treatment since it was founded in the first half of the 20th century. It is different from other methods because it treats energetic changes and lessens the pathological tension in the fascia. Whereas, other methods used by physiotherapists begin working with the patient much later, after functional changes have advanced – contractures or structural degenerations, which cannot be fully removed. And the organism will not be able to come back to full efficiency.

Pains of the cervical part of the spine occur quite often in modern societies, including the Polish one. What is more, this troubles younger and younger people.

The results of the research conducted on two groups of twenty people, which were described by Method T – Student, proved that both the therapeutic massage and the craniosacral therapy are effective ways of treating the pain syndrome of the cranial part of the spine.

Introduction

The history of mankind has inextricably intertwined with the treatment of motor organs. From time immemorial man has tried to lessen his ailments by massaging sore spots. This way people found the ailing places and with time, they learned to bring comfort to themselves and others.

The treatment techniques have been improved up till today. Former methods of treatment are being modified all the time, but also new ones come into being [3]. The first group contains the classical massage, which originated in Ancient China, India and Japan. In Europe it was Hippocrates, living in the 5th and 4th centuries B.C., who described the treatment methods using bare hands [4].

The second group definitely includes cranial osteopathy, created in the 30s of the 20th century. It originated from classical osteopathy. With time, it changed into craniosacral therapy [5]. William Garner Sutherland is believed to be the founder of the method, while his modern follower is John Upledger [6].

Both techniques are used to serve the same purpose. They are to bring relief in suffering.

Among numerous illness of contemporary man, spine ailments are most common. They are even referred to as a disease associated with the progress of civilization. Sedentary life of modern man, as well as many hours of work while sitting tend to increase the frequency of ailments of the cervical part of the spine, and unfortunately, they happen to young people.

The growing number of sick leafs due to the ailments of the upper part of the spine is also a social problem [7].

Background

Therapeutic massage is commonly known to have a positive influence on human body [9-13]. Whereas the cranial-sacral therapy remains an unknown field of knowledge. Little of conducted research [26, 27] did not include the influence of the treatment on decreasing pain ailments of the cervical part of the spine within the Polish population.

The aim of the article

In societies of the developed countries, more and more people complain about aches in the cervical part of the spine. That is why every physiotherapist, who treats his job professionally, should constantly improve his work methods and look for new methods of increasing effectiveness in eliminating pain.

The influence of the classical massage and the cranial-sacral therapy on pain ailments of the cervical part of the spine in a representation of the Polish society was researched.

The aim of the conducted research was to check:

1. Does the classical massage help to decrease pains in the cervical part of the spine?
2. Does craniosacral therapy help to decrease pains in the cervical part of the spine?
3. Does the new craniosacral therapy can be used simultaneously with the ancient massage to treat the pain of the cervical part of the spine?

Planning

The outpatients of Rehabilitation Clinic of the University Hospital in Bydgoszcz were examined. They were appointed to a research group randomly, in chronological order – randomization was used. The therapy done, a control examination was performed

Methods and material (research project)

The research was conducted on the basis of the consent of Bioethical Committee of Collegium Medicum of Nicolas Copernicus University in Bydgoszcz KB434/2013 of October, 10th, 2013

Prior to conducting the therapy, all participants were interviewed. All particulars were collected, including contact data and personal details. The subjects also filled in Before-Treatment-Questionnaire. It excluded contradictions against conducting the treatment.

While selecting the subjects, anybody could be placed in the first or the second group. An alternating selection was used according to the chronological order of calling, that is, randomization. One treatment a day was performed.

Control group – therapeutic massage of the cervical part of the spine together with shoulders, lasting half an hour, Each massage treatment lasted for half an hour.

The research in the control group was conducted from October 21st, 2013 till February 24th, 2014

The other group – research grupa – the selection of the research group was in the process of randomization. 5 treatments of craniosacral therapy, lasting half an hour each, were performed on the cervical part of the spine. The treatment was applied to the neck and the head, engaging also the mobilization of the dura mater of the spinal core.

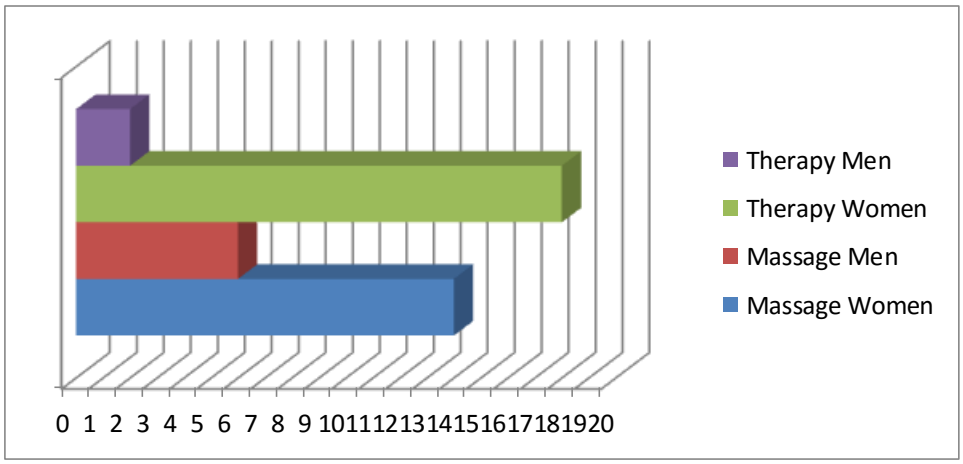
After accomplishing the treatment the participants filled a detailed part of the Questionnaire, in which they determined the positive as well as the negative aspects of the undergone changes after the therapy. People with pains of the cervical part of the spine were qualified for the research.

The institution of the research

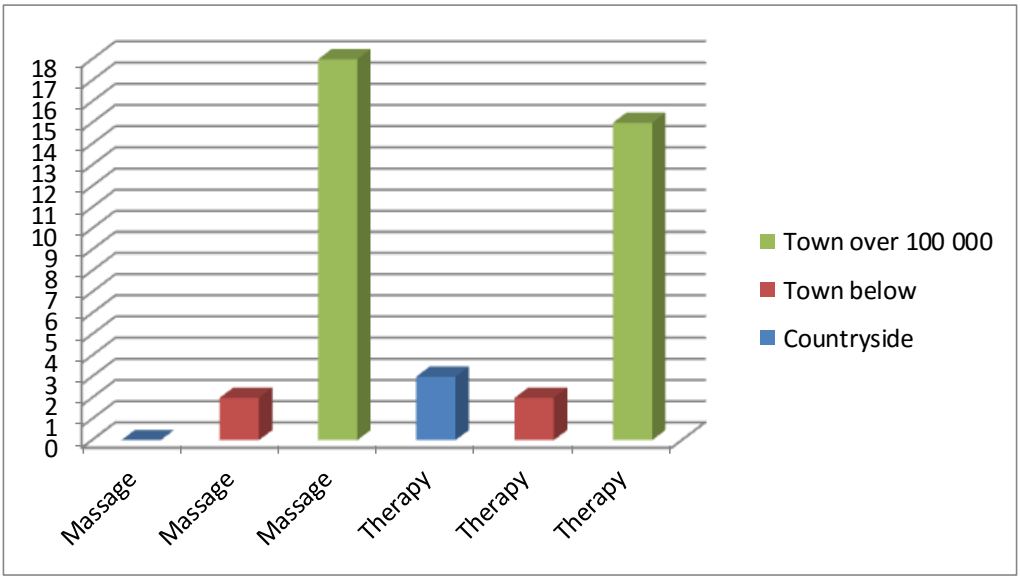
The research comprised outpatients of the Rehabilitation Clinic of the Rehabilitation Ward of the University Hospital number 1 of MKU in Toruń, Collegium Medium in Bydgoszcz.

Population

All the subjects agreed to conscious and voluntary participation in the research. They were also informed about the scope and process of the research.

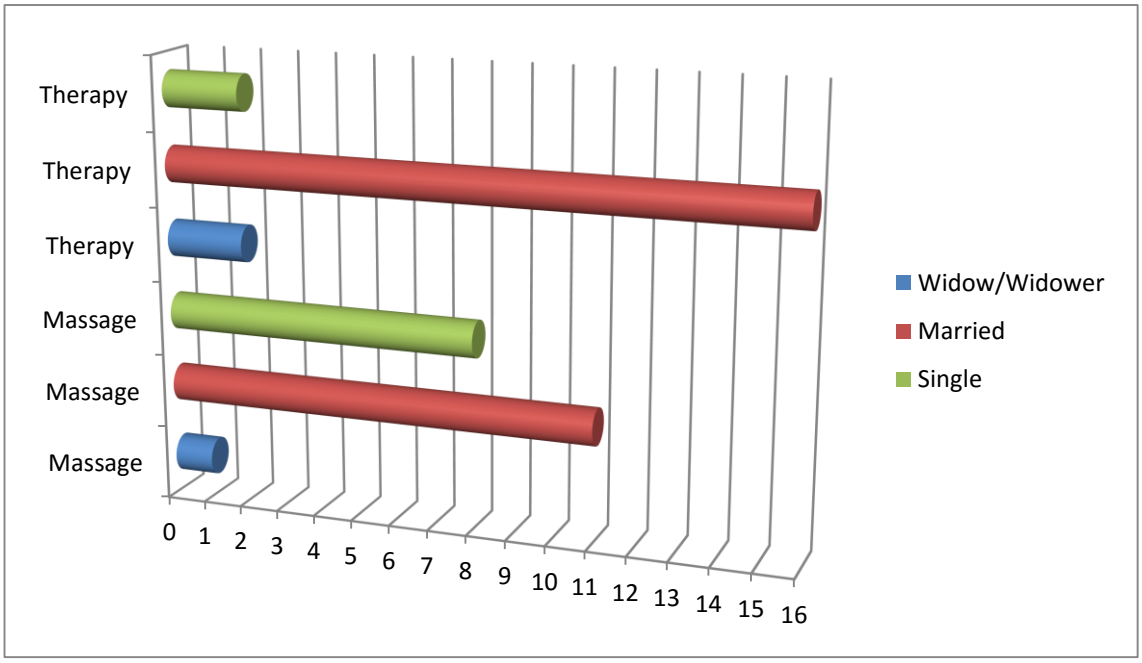


Graph 1. Division of subjects according to the sex



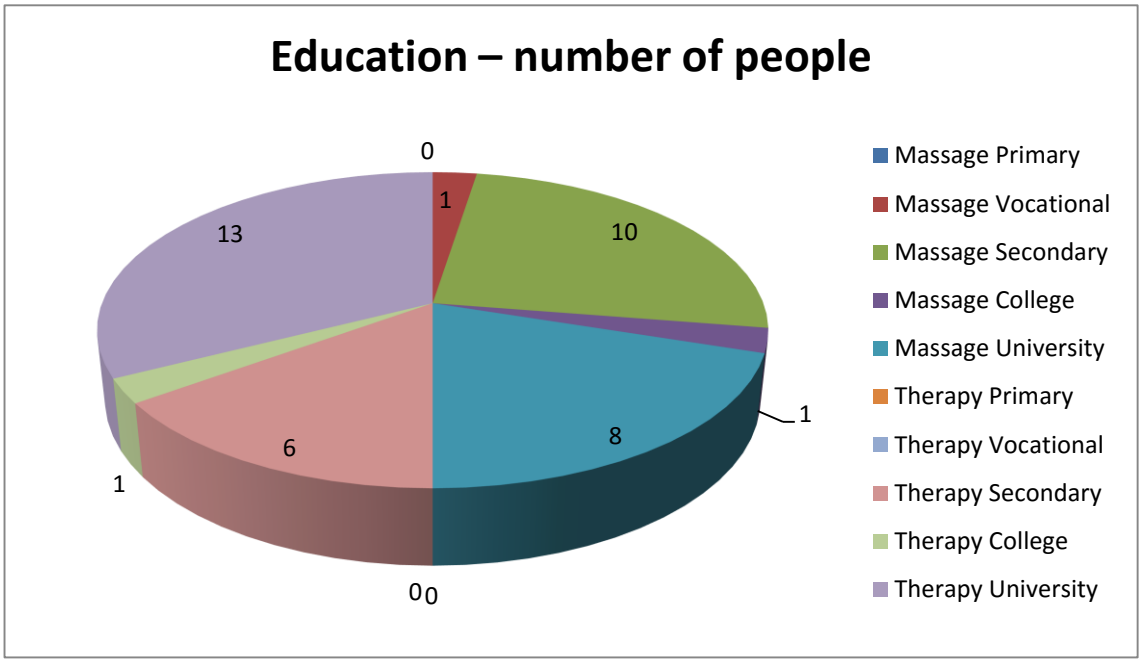
Graph 2. Division of subject according to their place of residence

The subjects were residents of Bydgoszcz and its vicinity



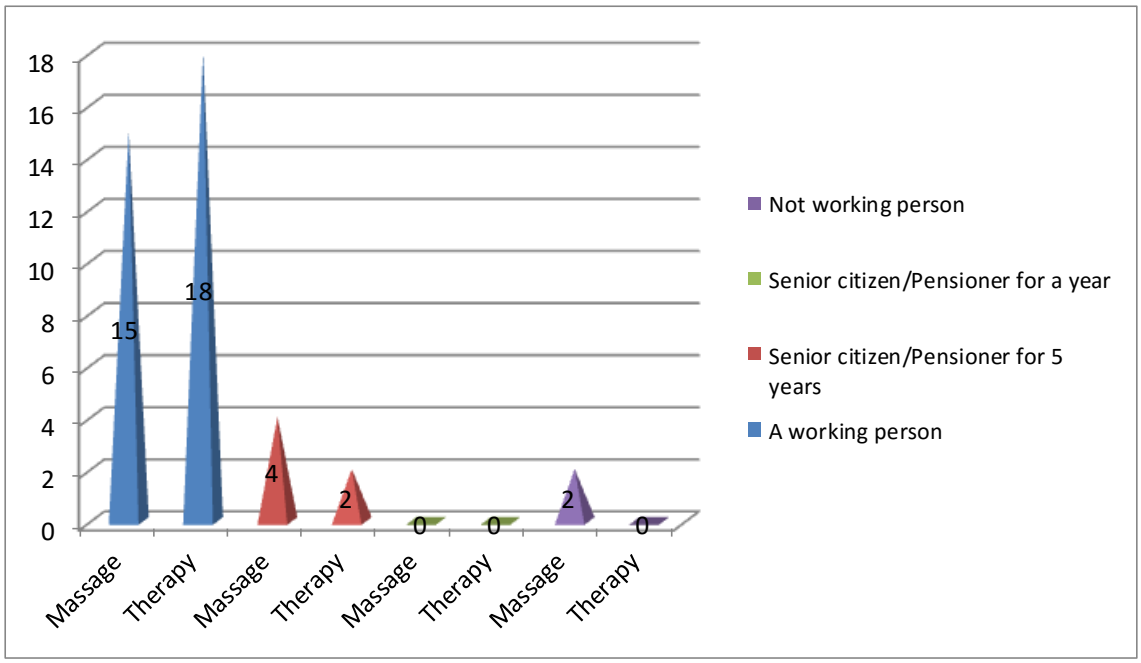
Graph 3. Division of subjects according to their marital status

A definite majority was constituted by married people.



Graph 4. Education of subjects

In the massage group there were no patients only with primary education. Most subjects declared secondary or higher education. Whereas, among patients in craniosacral therapy group there were no patients with education on primary or vocational level, and most claimed to have accomplished university education.



Graph 5. Professional status

A definite number of subjects were professionally active. One subject attending therapeutic massage gave a double answer; he ticked the box ‘working professionally’, as well as ‘being a pensioner for 5 years’.

Research methodology

The application of classical massage techniques and its influence on human body

Methodology of conducting treatment in the control group

While the massage was performer, the patients remained seated on a chair. They rested their forehead against he headrest of a couch, with their forearms lying there too at the level of shoulders. Due to this position, the muscles of the neck and the shoulderes were relaxed to the maximum.

The therapist took a standing position behind the patient.

Stroking

1. Stroking with joined thumbs from the base of the neck to the occiput. The first streak along the spinous processes. The following streaks along the transvere processes, on the left and the right side.
2. Transverse stroking of interocclusal spaces of spinous processes in the neck with thumbs. Starting with the area of the occiput, and ending with working on the seventh vertebra of the neck.
3. Gentle stroking with connected fingers II-V edges of the supraclavicular fossae. Simultaneously on both sides.

The aim of stroking techniques is to increase the skin tonicity and the subcutaneous tissue. As a result, they become smoother, more elastic and resilient. Moreover, the metabolism in skin tissues is faster, as well as bruise and swelling dissolve. Also, peripheral blood circulation is improved.

A very important aspect of the stroking technique is decreasing the excitability of the endings of sensory nerves due to the soothing effect on the central nervous system.

Stroking also performs a diagnostic function, which allows to discover an increased tension of skin tissues and the muscles underneath [8-12].

Rubbing

1. Rubbing with joined thumbs, starting with the seventh neck vertebra, down the spinous processes to the occiput. The subsequent streaks on the left, and then on the right of the neck.
2. Dubbing from the occiput to the shoulder with joined fingers II-V, on the right, on the left, and then simultaneously on both sides.
3. Working on the seventh vertebra with both thumbs.

The aim of rubbing is to increase the elasticity of muscles, tendons and the whole joint – ligament apparatus. Moreover, it removes muscle hardenings of different kind, swelling of joint capsules and various scars.

Additionally, it speeds the absorbtion of effusions and swellings through congestion and warming of the massaged tissues [1, 9, 10, 12, 13].

Kneading (Petrissage)

1. Working lengthwise on the strip from the occiput to the shoulder and backward, simultaneously with both hands. First, on one side, then on the other.
2. Kneading crosswise with whole palms both sides at the same from the occiput to the shoulder. First, on right side, then, on the left.

The kneading action brings about congestion of the area being worked on, and consequently leads to faster flow of blood and lymph. Due to it, the tissue exchange in muscles is easier, and hence their better nutrition. Bigger congestion is obtained by two basic functions. These are: pushing the blood and lymph from the peripheral vessels to the central ones, as well as, sucking by means of forming vacuum and sucking in blood from veins encircling the worked on region.

Moreover, physiological tension of muscles is adjusted by influencing deep sensory receptors, which affect muscle tone. Additionally, kneading improves elasticity and decreases too big tension of muscle tissues. Due to it, muscle strength and endurance are higher [1, 9-13].

Tapotement

1. Simultaneously on both sides the left hand on the left side, the right one on the right. Strips from the area of the occiput to the shoulders and back.

The aim is to increase the blood and lymph flow towards the chest. The lymph distribution in the intercellular spaces of superficial and deep tissues is also better. Additionally, the tension after physical effort is decreased; also after extended isometric exercise, especially occurring in forced positions, such as working at the computer [1, 9-12].

Vibrations

1. With fingers II-V joined together working on strips, first with right hand on the right side, and then with the left hand on left side of the spine.

The aim of vibrations is to lower the increased agitation of the central nervous system and peripheral nerves. It also increases locally the tension of muscle fibres and cell walls of blood vessels [1, 9, 10, 12].

Effleurage

1. Finishing the treatment with stroking with whole palms, first on the left, on the right, and at the end, on both sides simultaneously.

The aim is to calm and loosen the massaged area after the treatment. Moreover, the therapist checks whether there has been any change in the tissues as compared to the condition at the beginning of the treatment [1, 3].

Methodology of therapy in the research group and its influence on human organism.

Out of various techniques of craniosacral therapy for the sake of testing and treatment there were chosen those from '10 Step Programme', sometimes called 'Programme of 10 Points' [15].

Out of 'Programme of 10 Points' for the treatment of the cervical part of the spine, the therapist chose these which influence directly the area of body undergoing the treatment.

The aim of the techniques applied is to diagnose, and then to cure pathological changes within human body.

While undergoing the treatment, the patient should be lying comfortably. They do not need to undress, but remove all bits jewelry, especially chains from the neck, as well as the belt.

A rehabilitation table, with adjustable height, is most suitable, accessible on all sides. This makes therapist's work easier. Additionally, a stool on wheels, with adjustable seat height, is very convenient for the therapist.

Moreover, a roll can be placed underneath the patient's knees.

In all techniques, except the last one, the patients lie on their back, and are relaxed.

Methodology of performing

Relaxing the diaphragm of the upper outlet of the chest

The therapist sits at the patient's side. He puts one hand in the region of the seventh vertebra, on the back. The other hand is put in the region of the episternum and the clavicles. Both hands lie are placed laterally to the longitudional axis.

Relaxing the diaphragm of occipitocervical passage

The therapist, remaining in the same position, stays at the patient's side. The first hand is placed on the back side of the occipitocervical passage. The other hand touches gently, embracing with fingers II and III, the hyoid bone.

While relaxing the diaphragm of the upper outlet of the chest and the membrane of occipitocervical passage, the therapist presses gently with the first hand and controls the pressure with the other.

When feeling pressure from the other side of the body, it is assumed that the membrane is tensed up too much. In that case, we proceed to performing the therapy at once, which is simultaneous pressing and removing hands. After several repetitions, the therapist examines the tension of the membrane. The above-mentioned techniques are repeated until fascia membranes are relaxed, which means that it is possible to feel the pressure of the first hand with the other hand by the therapist [15, 16].

Resting point CV-4

CV-4 is a technique of pressing on the fourth chamber of the brain. While performing the technique, the therapist sits behind the patient's head. He places both hands on the occipital bone from the back. The hands are clasped together in such a way that fingers II-V of one hand intertwine with fingers II-V of the other hand; whereas, the phalanges of both thumbs touch one another.

During this hold, the therapist performing the treatment feels the phase of 'filling' and 'emptying' of the craniosacral rhythm. In the second part, the therapist applies a light pressure, allowing the cranium to stretch. In consequence of the pressure, the rhythm weakens or 'calming point' occurs, which is total rest. After a while, the rhythm returns, however, most often with a bigger amplitude [16, 17].

Compression and decompression of the sphenoid bone (crosswise system of fascial membranes of the head)

The therapist sits behind the patient's head and places his thumbs on the greater wings of the sphenoid bone, towards the back from the lateral corners of the eye-sockets. The remaining fingers embrace the head, touching the lateral party of the occiput.

Next, the therapist feels for the craniosacral rhythm, and during the 'filling', he compresses the sphenoid bone, and after a while presses backwards. If there is a resistance, it is made by the tentorium cerebelli, and not the sphenoid bone [16].

In the following stages of the therapy, further movements of the sphenoid bone should be checked: rotations clockwise and anticlockwise.

Then the therapist performs decompression of the bone towards eyes, that is, frontwards. The sphenoid bone decompression may be assumed accomplished when the bone ‘moves’ towards the cranial vault, and then backwards.

The sphenoid bone connects with the occiput by the sphenoccipital synchondrosis, creating the proper skull base. This synchondrosis, similarly to other junctions, ossify at the age of 25; however, there are minimal movements during ‘filling’ and ‘emptying’ of the cerebro-spinal fluid [16].

The decompression of the sphenoid bone has a significant influence on the bones surrounding it; thus, through the sphenoccipital synchondrosis on the cciput; through the sphenosquamous suture on the squamous part of the temporal bone; through the sphenopetrous synchondrosis on the petrous part of the temporal bone; through the sphenoparietal suture on the parietal bone; through the sphenozygomatic suture on the zygomatic bone and through the sphenofrontal suture on the frontal bone [2, 17].

Moreover, the therapy of this bone has a significant influence on connective tissue structures found in human head, like the cerebral falx and the cerebelli falx, the tentorium cerebelli and the sella turcica membrane. This latter structure has a direct influence on the hypophysis [2, 19].

Between the greater and smaller wings, there is the superior orbital fissure. The following cranial nerves pass through it: III (oculomotor), IV (trochlear), V (trigeminal – the first branch) and VI (abucent). Additionally, important blood vessels pass through this fissure [16, 17].

Thus, the decompression of the sphenoid bone has a very important influence on the surrounding bone and also on the cranial nerves passing nearby. It will also affect strongly on the connective membranes surrounding the brain and the intracranial circulation [20].

Frontal uplifting (vertical system of membranes)

The patient and the therapist remain in the same position. The therapist places both hands with joined fingers on the forehead, directed caudad. Hands should lie flatly against the frontal bone.

During the ‘filling’ stage, the therapist pulls the frontal bone forward, as it he wanted to ‘rip’ it of from both parietal bones.

The aim of this technique is to relax, that is, getting rid of tension appearing in the cerebral falx. The membrane is attached to the frontal bone, to the crista galli [15, 16].

The correct application of this technique improves also mobility in the coronal suture when it is blocked [15].

Vertex uplifting (vertical system of membranes)

The therapist, still sitting behind the patient's head, puts his fingertips (II-V) to both sides of the head above the coronal suture – 2–3 cm above the ears. Then, in the 'filling' stage, he presses slightly on the parietal bones forward and does not allow them to retract during the 'emptying' stage. He sustains the position during several cycles of the cerebrospinal fluid circulations, and at the end pulls them upward, that, o himself.

This technique aims at relaxing the tensions appearing in brain mambranes. It has an impact especially on the cerebral falx. It also relaxes distorsions of the following sutures: the parietomastoid, the squamous and the sphenoparietal ones. It also has a lesser influence on the lamboid and coronal sutures [16,17].

The decompression of the temporal bones (crosswise systems of membranes)

In the same position the therapist puts middle fingers into the earlobes, into the auditory canal, and fingers IV and V places in the area of mastoid processes of temporal bones. Then, the therapist examines the rhythm, particularly paying attention to the symmetry of both sides. Next, the therapist performs turning movements forward and backward in the saggital plane – alternately. After a few cycles one of the bones 'stops' but the alternate mobilization should still be performed.

The aim of the decompression is to obtain symmetrical movements of both temporal bones [16].

Another version of the same hold is to place the balls of the thumbs in the earlobes, when other fingers remain in the area of the mastoid processes of the temporal bones. The performance is identical to the turning in the first technique.

The third technique consists of placing middle fingers to the auditory canals and holding both earlobes with the remaining fingers from the back. Pulling of both ears is performed at the same time.

The aim of performing the three decompressions is to relax the tentorium cerebelli and to affect the nearby cranial nerves: V (the trigeminal) and VII (facial) [16]. Relaxing this area

of the head has an important influence on the centre of balance and the centre of hearing in the middle ear and the inner ear [14].

Moreover, there are arteries running in the area, which deliver blood to the speech centre. A higher tension in this area proves to be connected to problems with writing, of which some children suffer [18].

The dura matter (occipital part)

The patient is still lying on the back, and the therapist sitting behind the head, places fingers II and III on the occiput-cervical passage. However, the palm is directed forward and only fingertips of the mentioned fingers of both hands touch the patient. Additionally, the therapist's elbows are kept wide apart.

Under the weight of the head and the pressure of the therapist's fingers, the occipital muscles relax. Then, fingers II of both hands perform the traction towards the head. At the very end, the therapist brings his elbows to his trunk. Thanks to it, fingers III make a move resulting in additional relaxation of this area.

The aim of this hold is to relax the muscles in the area of occiput-cervical passage and mobilization of the dura mater by the act of pulling [2, 18].

The, during the traction, techniques 4 to 7 are reapeated.

The task of repeating the holds is to affect the connective tissue structures in the head and compare their relaxation during the therapy.

In the further stages of the treatment, point 3 was repeated – relaxing CV-4. The aim of this is to calm down the whole body and final control of the craniosacral rhythm [16, 1 7].

Dura mater (total relaxing)

In the final technique the patent lies on his side with slightly bent knees and hips. You can place a small pillow or a roll under the head to relax this area of body.

The therapist places one palm flat on the sacrum with fingers caudad. The other palm is placed on occiput with fingers cephalad.

The therapist feels for the craniosacral rhythm and the deepens it, following the *flexion* and *extension*. In the next part, the therapist draws the occiput further from the sacrum.

The aim of this hold is to decompress the whole dura mater and determine places of limited mobility of this connective tissue structure [15, 18].

Results

The used statistical metod T-Student for operands between groups of therapeutic massage and the craniosacral method.

Table I. Average age in both research group.

	Therapy average	Massage average	t	Stnd. deviation	p	
Age	49.70	49.45	0.056579	13.85	0.937716	No difference

Average age in both research groups after the applied therapy was similar, that is, 49 years of age. The youngest participant in the massage group was 21 years old, whereas, in the other group: 27. The oldest patients were respectively: 75 and 78.

In both, 20 patient groups, after the therapy, the subjective pain ailments were statistically important.

Table II. Massage – perceptible pain before and after the treatment [2].

Massage	Average	Standard deviation	Difference	Standard deviation	p
BEFORE	5.45	2.42			
AFTER	2.05	1.99	3.4	2.41	0.000005

In the results analysis T-Student method was used to analyze the results for dependent variables. In the therapeutic massage, the patients described the perceptible pain before the treatment at the level of 5.45, whereas, after the therapy it was 2.05. The standard deviation was originally 2.41, and after it was 1.99.

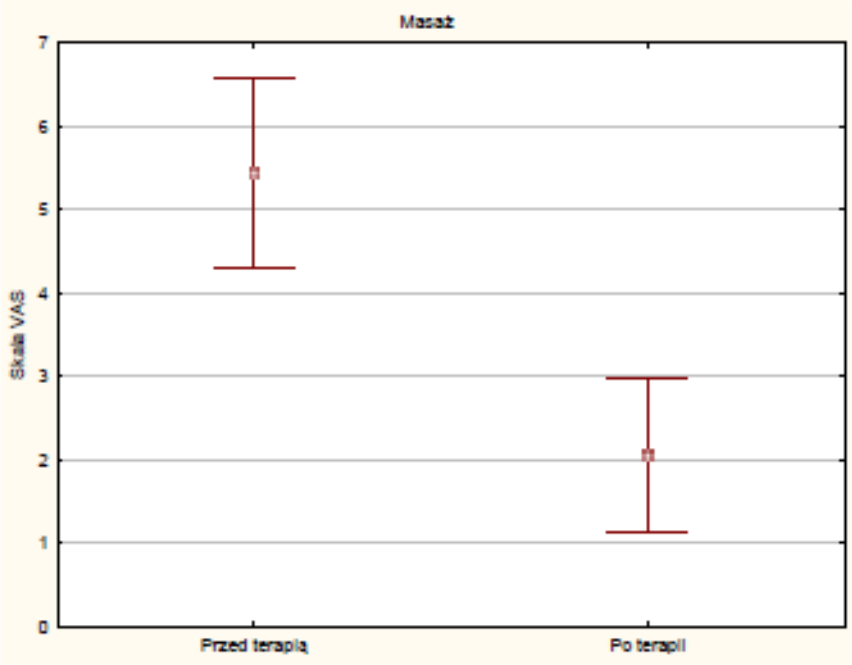


Chart 6. Massage – average pain before and after the therapy.

Massage // Skala VAS = Visual analogue scale// Before therapy// After therapy//

In the carniosacral therapy, the pain average was 6.15 before the treatment, and 2.00 after. The standard deviation before the treatment was 1.93, and after 2.36.

Chart III. Craniosacral therapy - perceptible pain before and after the treatment.

Therapy	Œ Average	Standard deviation	Difference	Standard eviation	p
BEFORE	6.15	1.93			
AFTER	2.00	2.36	4.15	2.18	0.000000

The difference between the subjective perception of pain before and after the massage treatment was 3.4; whereas, in the craniosacral therapy: 4.15. However, statistically important differnce was not taken a note of in subjective perception of pain between both therapies.

The test result turned out to be smaller than 0.05, so the difference is statistically important.

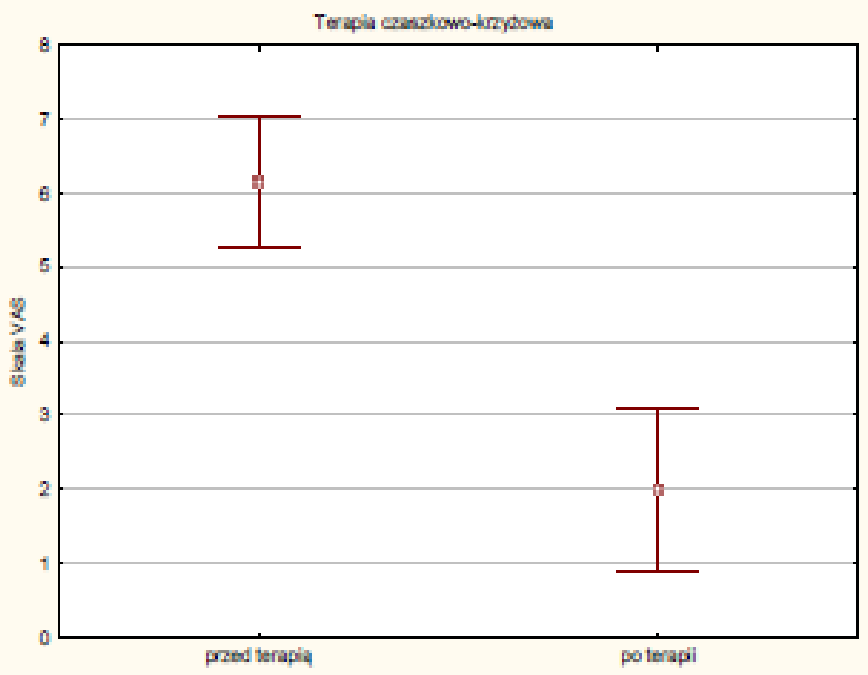


Chart 7. Craniosacral therapy: pain before and after the therapy.

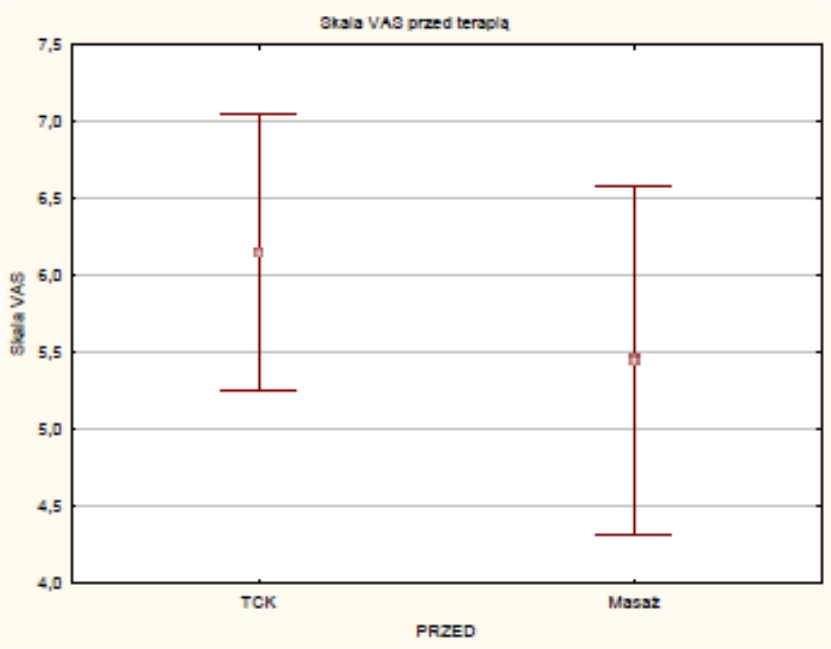


Chart 8. Comparison of average pain befor and after the therapy in both methods.

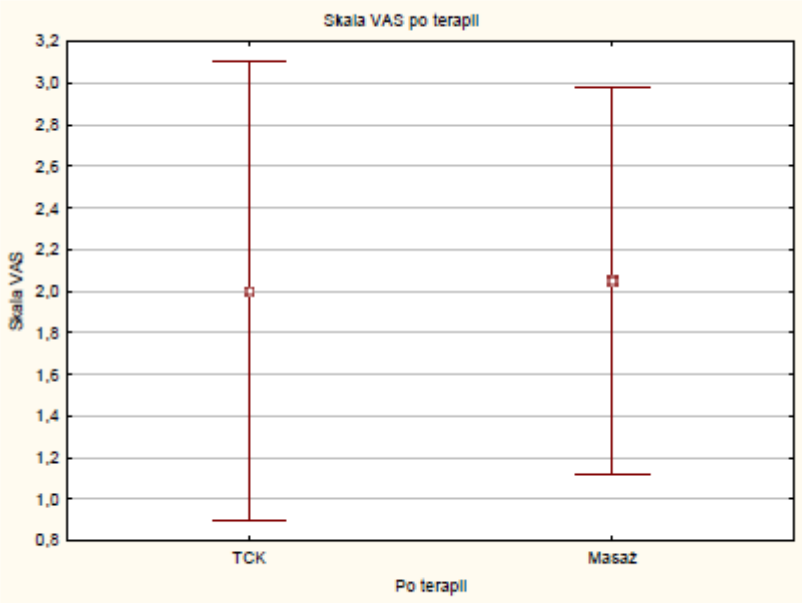


Chart 9. Comparison of average pain after the treatment in both therapies.

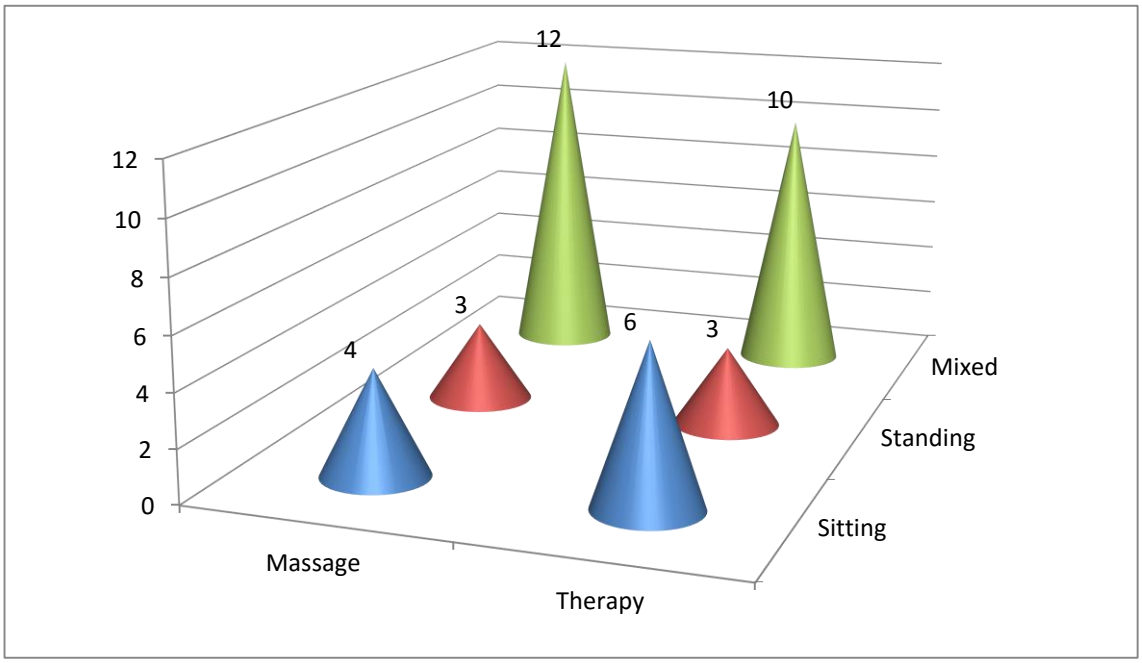


Chart 10. Most frequent positions at work.

Most people in both therapies worked in mixed positions.

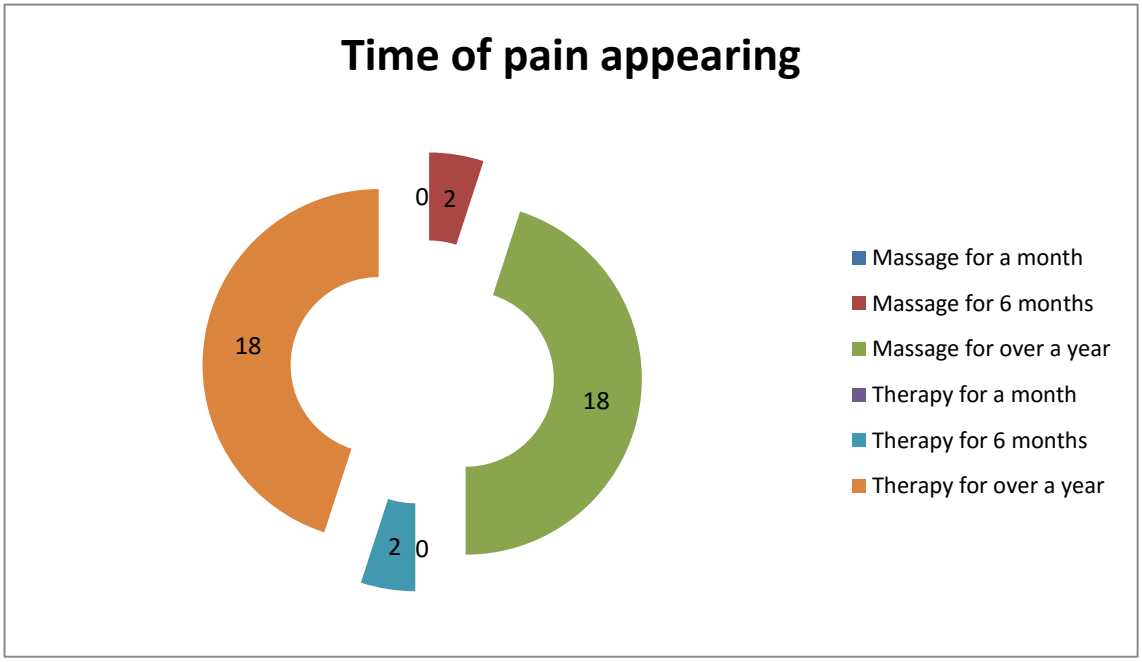


Chart 11. Since when the pinas appear.

A definite number of participants of both groups have suffered pains for over a year, which indicates a chronic character of the ailment.

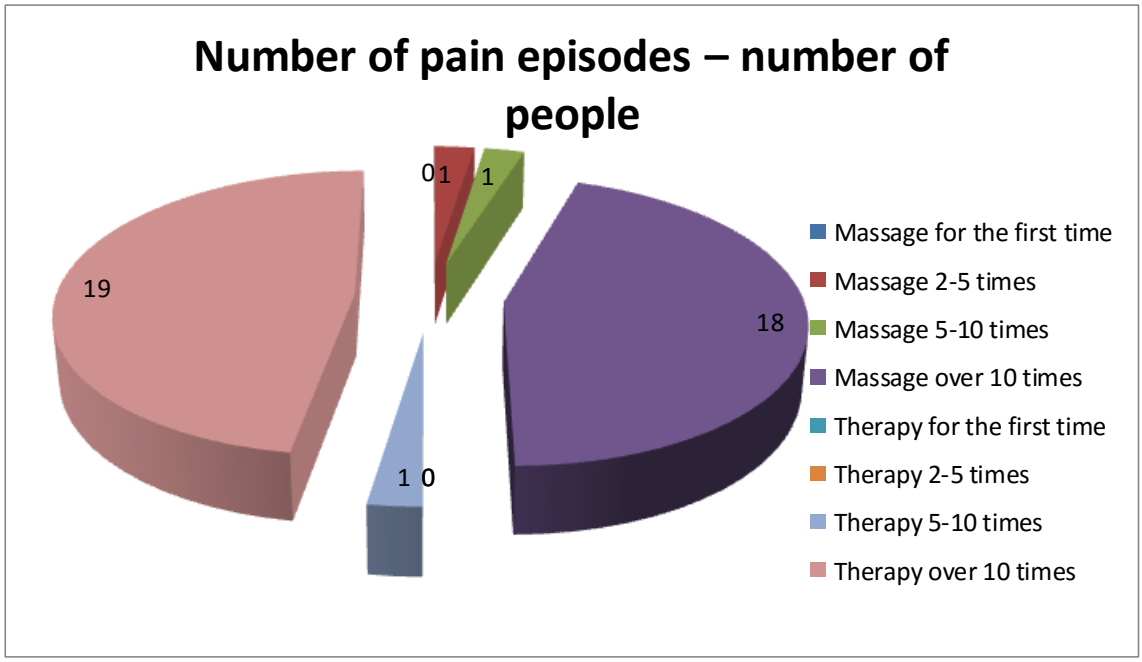


Chart 12. The number of painful episodes.

Most patients, both in the first and the second group claimed that pains appeared more than 10 times, which additionally confirms a chronic period of increasing illness.

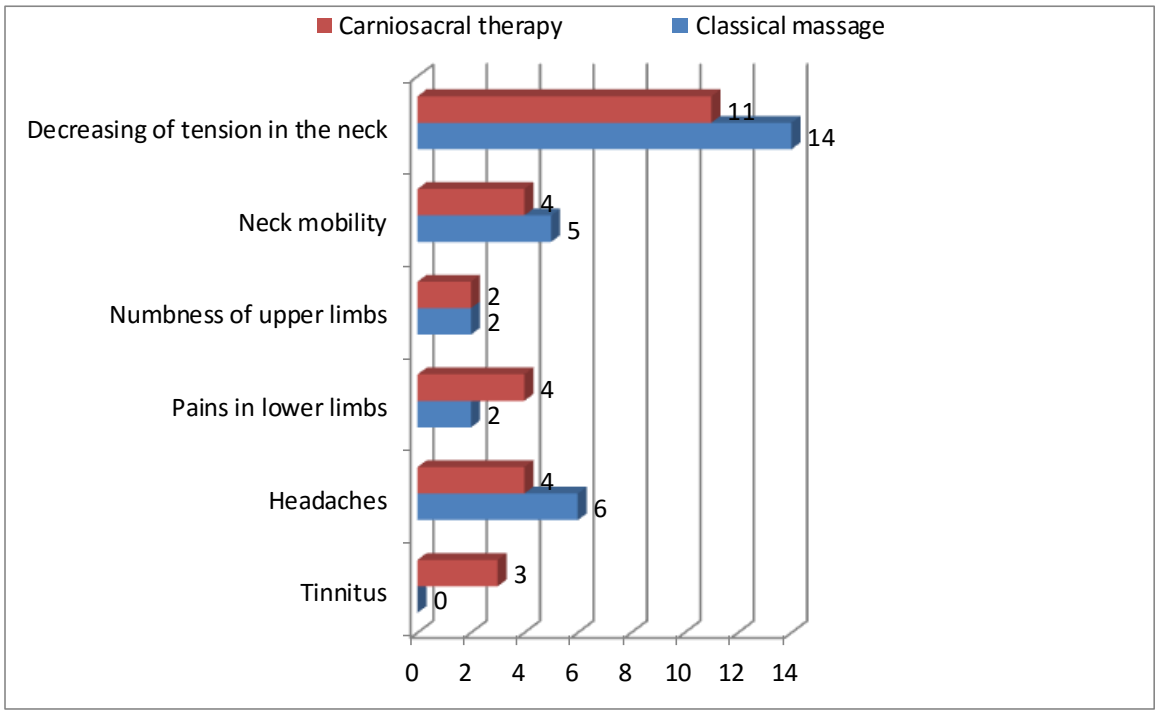


Chart 13. Perception of pain – decreasing the ailment in the neck after the treatment.

Among perceptions in the neck after the performed treatment, most people claimed smaller tension in the neck muscles, improved neck mobility, smaller numbness of upper limbs and fewer headaches, as well as disappearing of tinnitus.

Moreover, one person in the craniosacral therapy group claimed disappearance of sleeplessness and another of vertigo. On the other hand, one person in the massage group declared a better mood.

Discussion

Changes within the spine and associated ailments are not fully recognized today. They constitute a serious diagnostic and therapeutic problem. They are more and more frequent, also with younger people.

According to A. Kwolek, doctor of numerous specialities deal with back-pains, such as: rehabilitation, neurology, psychology, anthropology, and even pediatrics [21].

Contemporary medicine has not fully recognized the phenomenon of pain – its appearing, conducting by the nervous system and resulting changes within the brain. The complexity of pain processes is discussed by M. Krasuski: 'From the point of view of pathology, feeling pain is complex. The pain phenomenon, at first, undergoes transduction, then it is followed by the transmission process of the pain stimulus, then it is modulated, and finally, is perceived in a respective places in the cerebral cortex. These changes are accompanied by biochemical processes which release a chain of injury mediators and a state of tissue inflammation… The difficulty of pain interpretation and its objective evaluation result also from the fact that we have not fully recognized the process of transmission and pain perception, especially because of limited possibilities of quantitative evaluation of these processes' [22].

All fascia in human body is interconnected. On average, man takes 25,000 breaths in 24 hours, when his heart beats 1000,000 times [23]. Even a small and seemingly unimportant tension is repeated as a pathology 130,000 times a day, and will be increased. Hence, early diagnosis and removal of even small fascia tension is most important, as this may lead to fascia restrictions and distortions in cranial sutures. And this is only the beginning of pathologies which will multiply. Cranioscacral therapy works with the patient from the moment of small fascia tensions appearing, whereas, classical physiotherapy begins at the level of functional and structural changes.

In literature, there are few studies describing objective evaluation of effectiveness of therapeutic massage. The reason is shortage of objective methods of measuring the influence of this treatment method on decreasing pain ailments of cervical part of the spine and limitations in their usage. However, it is a common knowledge that massage fights pain, especially of the motor organs [24, 25].

Just like in the case of massage, the literature referring to the craniosacral therapy is also scarce. Unfortunately, there is lack of objective methods describing the influence of this therapy on pain removal. Rare studies are based on authors' own experience, for example, applying the craniosacral therapy in treating motor organs [26] and in rehabilitation of infantile paralysis [27].

The absolute value of the difference in numbers of subjective decreasing of pain perception in the craniosacral therapy is bigger than in classical massage; however, to slight

degree. Perhaps, doing a research into a bigger group would allow to observe greater differences.

Results

The problem of pain in the cervical part of the spine afflicts more and more people. It develops in younger people who are professionally active. Hence, it is necessary to develop existing methods, including definitely classical massage, and look for new methods of treatment, such as the craniosacral therapy.

On the basis of conducted research, the following conclusions have been drawn:

1. Classical massage is an effective and valuable method of curing pain ailments of the cervical part of the spine.

2. The craniosacral therapy is an effective, non-invasive method of curing pain ailments of the area of the neck.

3. The craniosacral therapy, with its only 100 years of history, can be used equally well together with the classical massage known and valued for thousands of years to cure pain ailments of the neck.

The patients evaluated the applied method positively. They felt better and the pain ailments were lesser. The other group – the research one – the improvement of health was greater. The fact suggests a more effective influence of the cranial-sacral therapy than the classical massage in case of pain ailments of the cervical part of the spine.

Financing

The research was funded from the authors' own means; no firm sponsored the research

The research authors were not dependent professionally; neither there was a conflict of interests between them.

The leader of the research is a professional physiotherapist with a long-standing clinical experience in performing classical massage; he also has an international; certificate of Upledger Institut Deutschland, entitling him to perform the cranial-sacral therapy.

Bibliography

1. Walaszek R., Kasperczyk T., Masaż z elementami rehabilitacji, Rehmed, Kraków 2009: 9-371.
2. Chaitow L., Comeaux Z., Manipulacje czaszkowe na tkankach kostnych i tkankach miękkich: teoria i praktyka, Warszawa, DB Publishing 2010; 2-416.
3. Zborowski A., Masaż, CMDNŚSzM, Warszawa 1991; 7-42.
4. Kaltenborn F., Kręgosłup badanie manualne i leczenie, Toruń, Wydawnictwo Roleski 1998; 40-3.
5. Ernst E., Pittler M., Wider B., Terapie uzupełniające w leczeniu bólu, Wrocław, Elsevier Urban & Partner 2010; 201-4.
6. Trevelyan J., Booth B., Medycyna niekonwencjonalna. Prawda i mity, Warszawa, PZWL 1998; 221-3.
7. Błaszczyk M., Sacharuk M. i wsp., Zmiany zwyrodnieniowe narządu ruchu w kontekście orzekania o niezdolności do pracy i potrzebie rehabilitacji leczniczej, Ortop Traumatol Rehab 2006; 8, 4: 473-476.
8. Lewandowski G., Masaż leczniczy, Annał, Łódź 2012: 185-297.
9. Podgórski T., Masaż w rehabilitacji i sporcie, Wydawnictwo AWF, Warszawa 1996: 29-96.
10. Prochowicz Z., Podstawy masażu leczniczego, PZWL, Warszawa 2009: 22-98.
11. Zborowski A., Masaż klasyczny, Wydawnictwo AZ, Kraków 2008: 9-371.
12. Zborowski A., Masaż w wybranych jednostkach chorobowych, Wydawnictwo AZ, Kraków 2010: 124-188.
13. Kochański M., Techniki masażu klasycznego, Wydawnictwo Markmed Rehabilitacja, Ostrowiec Świętokrzyski 2012: 80-121.
14. Walaszek R., Kasperczyk T., Magiera L., Diagnostyka w kinezyterapii i masażu, Biosport, Kraków 2007: 73-308.
15. Miszewski W., Miszewska A., Nowoczesne metody fizjoterapii – terapia czaszkowo – krzyżowa, Medycyna Rodzinna 2014; 3: 141-6.
16. Drobner Z., Wprowadzenie do terapii czaszkowo - krzyżowej, Wydawnictwo Roleski, Nowa Wieś 2002: 9-134.
17. Gelber F., Terapia kranio – sakralna. Materiały szkoleniowe z kursu terapii kranio – sakralnej cz. I, Wrocław 2007.
18. Höppner S., Terapia kranio – sakralna. Materiały szkoleniowe z kursu terapii kranio – sakralnej cz. II, Wrocław 2007.
19. Upledger J., Somatoemotional Release and Beyond, Ul Publishing, Palm Beach Gdns 1990.
20. Upledger J., Vrederoogda J., Craniosakrale Therapie, Upledger Institute, Germany 1995.
21. Kwolek A., Kręgosłup szyjny – złożoność budowy, funkcji i problemów klinicznych, Rehabilitacja Medyczna 1998; 2, 3: 9-13.
22. Krasuski M., Algorytm postępowania diagnostyczno – leczniczego w zespołach bólowych kręgosłupa, Rehabilitacja Medyczna 2005; 9, 3: 25-31.
23. Voss B., Terapia kranio – sakralna. Materiały szkoleniowe z kursu terapii kranio – sakralnej cz. III, Wrocław 2007.
24. Andrzejewski W., Kassolik K., Schulz T., Piątkowski P., Ocena skuteczności masażu medycznego u osób z chorobą zwyrodnieniową odcinka szyjnego kręgosłupa z wykorzystaniem karty oceny pacjenta, Kwartalnik Ortopedyczny 2004; 1: 28-34.
25. Andrzejewski W., Kassolik K., Schulz T., Piątkowski P., Ocena skuteczności masażu leczniczego i zabiegów fizykalnych u chorych z dolegliwościami bólowymi odcinka szyjnego kręgosłupa, Kwartalnik Ortopedyczny 2003; 1: 13-16.
26. Gajowiec B., Zastosowanie technik leczenia systemu czaszkowo - krzyżowego w leczeniu dysfunkcji narządu ruchu - obserwacje własne, Terapia Manualna 2000; 4, 3-4: 62-64.
27. Śliwiński Z., Permoda A., Terapia kranio-sakralna w leczeniu dziecięcych porażeń mózgowych – doświadczenia własne, Terapia Manualna 1998; 2, 1: 30-35.