

THE ROLE OF PHYSICAL EXERCISES APPLIED THROUGH KINESIOLOGY IN LORDOSIS CORRECTION

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Abstract: In the case of this new research we selected and applied the most effective means of correcting the lordosis, physical exercises with the highest degree of correction, as well as the intensity at which these must be made to achieve as rapidly as possible the desired results. Corrective exercises are necessary in the kinesiology recovery and that is why finding the best methods and their application in treating lordosis positively affects the treatment process of this disorder. The treatment period needs such an intervention and obtaining results as favorable during treatment sessions.

Introduction

Lordosis or “back in the saddle” is a medical term used to describe the anterior curving of a part of the spine. Two segments of the spine are normally lordotic: lumbar and cervical.

Lordosis can be found in all age groups, affects especially the lumbar spine, but also the cervical spine. When physical lumbar deficiency is revealed, the patient presents back in the saddle, prominent buttocks and exaggerated posture.

Lumbar lordosis can be painful, sometimes affecting movement and it can be treated through the laying on of the abdominal muscles and by wearing of harnesses.

Physical therapy treats effectively 70% of cases of scoliosis, kyphosis, lordosis and abnormal posture of the body.

Individualization of each recovery program was one of the best ideas for achieving the best and most effective results for each individual patient.

In the lumbar lordotic the basin is leaning to the front, it is located in the so-called anteversie position, with the horizontalisation tendency. The abdomen is apparently increased, due to the accented curvature of the

lumbar spine that is pushed to the front. These changes of posture are accompanied by the hyperextension of the knee or “genu recurvatum”.

Emphasizing of the physiological curvature determines a change of position and of anatomical relationship between vertebrae. Thus, forces that act normally on the vertebrae are no longer uniform distributed. Higher forces acting on the lower surfaces will eventually determine attrition damage to the vertebrae and their degeneration with the installation of the cervical or lumbar spondylosis.

Most of the times, lordosis is fully recovered with kinesiology and orthopedic treatment (corset).

Material and method:

Kinesiology program should be made by a specialist in the field because it requires an evaluation as clear as possible of the physical possibilities (muscle and articulation) of each person. Treatment is thus individualized and no person will react on the same way as the other.

Kinesiology program should be entirely overseen by the specialist. It is very important that the exercises should be performed correctly in order not to overburden the spine and to avoid accidents. Depending on the progress of each case, the treatment can suffer changes adapted to the patient's condition at that time. This flexibility of the program is required for a quick recovery, depending on each patient's response. It is preferable that this form of therapy to be carried out in a suitably equipped recovery room. Thus, it considerably increases the chance of recovery by specific means that are available.

Methods that we have at our disposal are: massage, physical exercises that are systematically repeated, supporting materials that we have in the kinesiology room (supports for the physiological curvature, stick, medicinal balls, sand sacs, elastic bands), physical therapy, swimming.

The aim:

- improve posture
- increasing the spine flexibility (spine mobility is limited especially in the lordotic area)
- the increase of muscular strength – toning the abdominal muscles
- toning the big buttocks
- toning and rebalancing the paravertebral muscles

Treatment Program:

- somatoscopic examination – assessment of height, anatomic landmarks alignment from profile at the median line;
- Kinetic exam -functional sample sitting or squatting;
- Examination with the lead wire -at the vertical of lead wire, or 00 line of CAS, applied tangent to the tip of the curve it measures the lumbar arrow (normal = 30mm);
- The mobility of the spine – medius index – ground for the previous plexia;

General clinical examination performed:

- Constitutional type weight and height
- Assessment of the skin, the tegumentary integrity of the existing wounds, excoriations, the color of the skin, tegumentary elasticity, skin temperature, and also through palpation we can feel the scars, scars mobility
- Subcutant tissue made up of fat and fibrous tissue, modifications for the purposes of the region size given by the edema, muscular hypertrophy, deposition of bone tissue.

Exercises program for lordosis' correction

Day 1

Table.no.1

The adopted positions	Examples of exercises	No. of iterations	No. of series	Observations
1. Dorsal decubitus with bent knees	- lifting and lowering exercises of the shoulders, with the head on the ground;	10x	2x	-neck remains all the time on the mattress
	-leaning the head to the right and to the left, with a tendency to stick the ear of the shoulder;	10x	2x	
2. Position on the knees, support on the palms	- bending the elbows, with approaching the chest to the ground;	8x	2x	-elbows remain folded -keeping your arms behind your back -Prevention of imbalance
	- on the knees, hands behind your back: bending the trunk forward	8x	2x	

3. From standing or sitting positions, exercises with the stick held at both ends	- from fan dat walking, with stick fixed at shoulders level;	6-8 x	1x	-stick remains fixed throughout the entire exercise
	-from walking, extension exercises of arms with arching up and sideways;	6-8 x	1x	

Day 2

Table no.2

The adopted positions	Examples of exercises	No. of iterations	No. of series	Observations
1. From dorsal decubitus position, with bent knees	- arms near the body : approach and distance of shoulders;	10-15x	2x	- keeping the head in the support position - ensuring a correct inspiration and expiration
	- lifting up the cervico – dorsal region off the ground (the head remains the support point);	8-10x	2x	
	-slow lifting arms by side, until they get in the trunk extension – inspiration ; the descent of arms – expiration	10-15x	2x	
2.From ventral decubitus position, with crossed hands under the chin	-the successive putting of chin and forehead on the hands;	10-15 x	2x	
	-carrying the chin to the left shoulder, then to the right one	10-15x	2x	

3.From standing or sitting position, exercises with the stick held at both ends	- stick resting on shoulders, trunk bending forward at 40° – 50° with arching and head up – comeback;	10-15 x	2x	
	- from sitting on a chair, diaphragmatic breathing, with the relaxation of the abdominal wall in inspiration and contracting it in expiration	8 x	1x	

Day 3

Table no.3

The adopted positions	Examples of exercises	No. of iterations	No. of series	Observations
1. From the position on the knees and support on the palms	- elbows bending with the lifting of chest and raise of head – looking ahead – comeback;	8x	2x	-maintenance of sight before -the correct execution of the leg-stretched
	- elbows bending with alternative lifting of a stretched back leg – comeback;	8x	2x	
	- lifting the arm and the opposite leg – comeback - repeat with limbs on the other side	8-10x	2x	
2. Exercises in sitting position	- Spinal flexion is performed, trying to approach the palms to the floor - keep 5 seconds; -on the ground, feet apart, arms up: leaning the chest to the left foot, to the right one and up front with exhalation: comeback with inspiration	8-10 x 8-10 x	2x 2-3 x	- performing correctly the inspiration and exhalation

3. Applied exercises	-squat walking; - walking on the heels, hands on hips; - squat walking with ball held above the head; - lunge walking forward, hands on hips; - Frog jump - squats			
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Results:

As a result of carrying out correctly and systematic the physical exercises required by the recovery program, it was found that over a period of two months

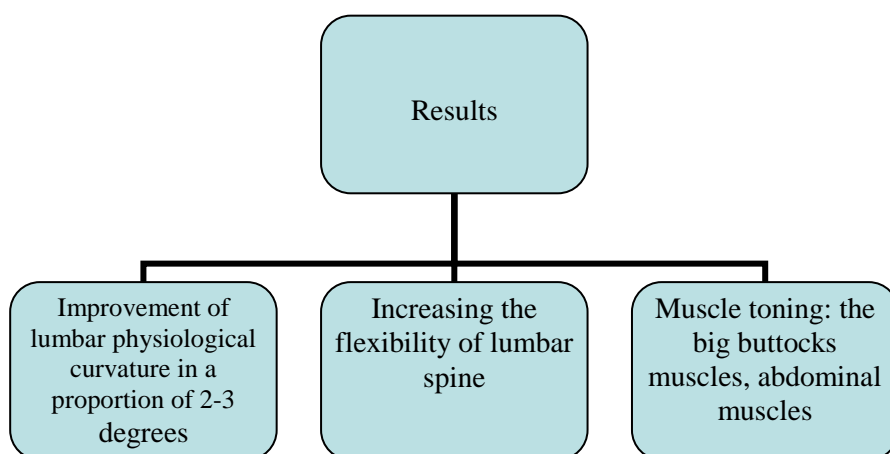
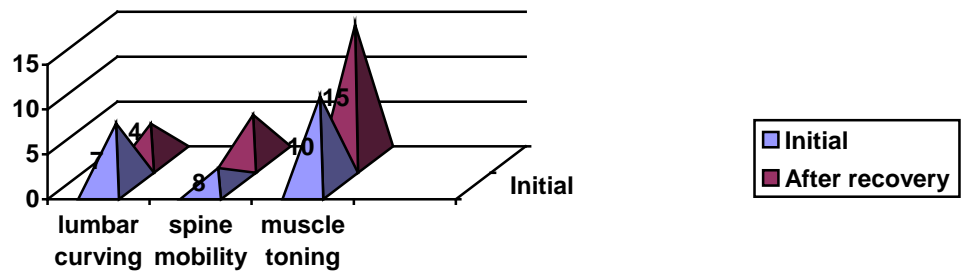


Fig.no.1

The recovery program will be continued, including exercises with weights, with increased intensity, exercise program for home and recommendation for practicing a sport (for example: swimming).

THE OBTAINED RESULTS FOLLOWING THE CORRECTION PROGRAM



Graphic no. 1

Conclusions:

Following a treatment program composed correctly, but also repeating the exercises repeatedly there can be favorable results in order to improve the deficiencies of the spine.

Scientific research of this deficiency, and getting the physical exercise that gives us the best efficiency, has made easier the recovery by means of kinesiology, more affordable for patients who present different degrees of lumbar curvature, and allows us to differentiate and individualise each patient individually.

The program should be continued to obtain the best possible results, continuing with the maintenance gymnastics, physical exercise for a correct posture.

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Titlul: Rolul exercițiilor fizice aplicate prin intermediul kinetoterapiei în corectarea lordozei

Cuvinte cheie : lordoza, exerciții fizice, kinetoterapie

Rezumat : În cazul acestei cercetări noi am selectat și am aplicat cele mai eficiente mijloace de corectare a lordozei , exercițiile fizice cu cel mai

mare grad de corectare , precum și intensitatea la care acestea trebuie lucrate pentru obținerea cât mai rapidă a rezultatelor dorite. Exercițiile corective sunt o necesitate în recuperarea kinetoterapeutică, de aceea găsirea celor mai bune metode și aplicarea lor în tratarea lordozei influențează pozitiv procesul de tratare a acestei afecțiuni. Perioada de tratament necesită o astfel de intervenție și obținerea de rezultate cât mai favorabile în timpul ședințelor de tratament.

Titre : Le rôle des exercices physiques appliquée par la kinésiologie dans la correction de la lordose

Mots-clés: lordose, exercices physiques, la kinésiologie

Résumé: Dans le cas de cette nouvelle recherche, nous avons choisi et appliqué les moyens les plus efficaces de la correction de la lordose, des exercices physiques avec le plus haut degré de correction, ainsi que l'intensité à laquelle ceux-ci doivent être prises pour atteindre aussi rapidement que possible les résultats souhaités.

Exercices correctifs sont nécessaires à la récupération de la kinésiologie et c'est pourquoi trouver les meilleures méthodes et de leur application dans le traitement de la lordose affecte positivement le processus de ce trouble de traitement. La période de traitement a besoin d'une telle intervention et l'obtention de résultats aussi favorables lors des séances.