

THE IMPORTANCE OF EARLY KINESIOLOGY PROGRAM APPLICATION IN THE CASE OF LOW LUMBAR DISC PROTRUSION

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Key words: protrusion, kinesiology, Williams, McKenzie, recovery.

Summary: In the case of lumbar disc problems, protrusion is considered to be the first stage of evolution. For this study we had three people as subjects diagnosed with disc protrusion, with different forms of evolution. Each patient benefited from an individualized kinesiology program. After the treatment, was found an improvement in symptoms of the lower lumbar disc protrusion: as the treatment was applied earlier, results were even better.

Introduction:

Disc protrusion is a pathological process located at the level of the intervertebral disc and is characterized by a partial rupture of the layers of fibrous ring which has the effect the protrusion of the nucleus in the area of the rupture. This is accompanied by increasing volume of the intervertebral disc in the area where the nucleus exerts pressure.



Fig.1 Disc protrusion

As de Sèze said, disc protrusion corresponds to the first stage of nuclear degeneration, without moving. It produces a decrease in intervertebral space, with overall bulging disc, which still keeps intact fibrous ring. The next stage is in which the fibrous ring is broken, and the nucleus puts pressure directly on nerve roots, is the disc herniation.

This type of pathology is one of the most common. The therapeutic aims in this case are: to relieve pain, to decrease nerves root irritation, combat muscle contractures, increasing the intervertebral space.

Material-method:

Research was conducted over a period of five months, on a total of three subjects, selected based on clinical and laboratory manifestations. The first subject, 36 years old was diagnosed with L5-S1 radiculitis on the right side, caused by an early protrusion. The second subject, 26 years old, was diagnosed with L5-S1 disc protrusion, and the third 32 years old, present a herniated disc L5-S1, but also protrusion at levels L3-L4 and L4-L5

To the subjects there were applied initial and final tests to be compared. Programs of recovery and initial and final assessments were made in the Office of kinesiology at the University’’ Stefan cel Mare’’, Suceava.

Each subject received an individualized rehabilitation program, according to the progress of disc protrusion. Thus the first subject, the easiest form of protrusion followed a program based on the elongations and tractions effectuated manually (Fig. 2).



Fig.2

The second subject, with a little more advanced form of a protrusion, followed a recovery program on McKenzie method (Fig. 3).



Fig. 3

The third subject, the most severe form of protrusion, received postural exercises and Williams exercises (Fig. 4).



Fig. 4

Results:

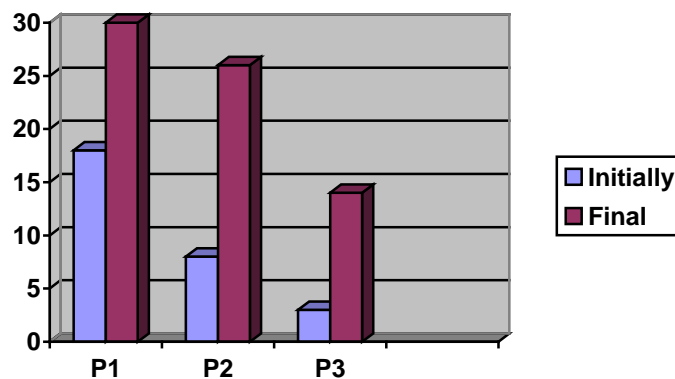
Since back pain affects the achievement of daily activities, subjective evaluation was made based on Low-Back-Pain Module Scale. This scale was developed as a test of functional assessment of patients with back pain to assess the quality of life.

Table 1
Low-Back-Pain Module Scale – patient 1

No. Crt.	Name parameter	Initially	Final
1	Occupation (work)	1	3
2	Recreational activities (hobbies, sports, cultural, social)	2	3

3	Limitations on physical activity	2	3
4	Limiting posture	2	3
5	Irritability	1	3
6	Depression	2	3
7	Pain (pain there)	1	3
8	Pain intensity	2	3
9	Family Issues	3	3
10	Sleep	2	3

The same scale was used to assess functional capacity of the other two patients. Maximum score on this test is 30 points, representing 100% of normal functional ability of a person.



Graph 1 Total Low Back Pain Assessment Modules

The best results we have obtained with the first patient, we've gone from 60% to 100% of normal functional capacity (from 18 points to 30 on the Low Back Pain Scale).

At the second patient, although we have not reached a normal functional capacity, was observed most spectacular growth since we started with only 26.6% and finally we obtained 86.6% of normal capacity (from 8 to 26 points).

A normal functional capacity increase could be seen and the third patient (from 3-14 points), but not enough to continue only with physical therapy treatment. Following thorough the rigorous assessment at the specialist doctor, the patient was proposed for the operation.

Discussions:

The results depended heavily on the stage of protrusion. As the kinesiology treatment was applied earlier, the result was even better. Immediate implementation of the kinesiology program can prevent a herniated disc installation.

After the kinesiology treatment there was an improvement of the lower lumbar disc protrusion symptoms. A proper treatment will prevent and correct the physical deficiencies, which can develop following the adoption of the wrong postures.

Kinesiology can improve and enhance the effects of medical treatment and physiotherapy. The obtained results thereby maintain long-term for an optimal socio-professional reintegration.

After application of physical therapy program was a considerable improvement in quality of life.

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Titlu: Importanța aplicării programului kinetoterapeutic cât mai precoce în cazul protruzie discale lombare joase.

Cuvinte cheie: protruzie, kinetoterapie, Williams, MacKenzie, recuperare.

Rezumat: În cazul discopatiilor lombare, protruzia discală este considerat a fi primul stadiu de evoluție. Pentru acest studiu am avut drept subiecți 3 persoane diagnosticate cu protruzie discală, cu diferite forme de avansare. Fiecare pacient a beneficiat de un program kinetic

individualizat. După aplicarea tratamentului s-a constatat o ameliorare a simptomatologiei protruziei discale lombare joase astfel: cu cât tratamentul a fost aplicat mai devreme cu atât rezultatele au fost mai bune.

Titre: L'importance de l'application du programme kinésiologique tôt le cas de faible lombaire saillie.

Mots - clé: saillie, la kinésiologie, Williams, McKenzie, à la récupération.

Résumé: Dans le cas des problèmes de disque lombaire, dépassement est considéré comme la première étape de l'évolution. Pour cette étude, nous avons eu trois personnes comme des sujets diagnostiqués avec saillie du disque, avec des formes différentes de l'évolution. Chaque patient a bénéficié d'un programme de kinésiologie individualisé. Après le traitement, a été constaté une amélioration des symptômes de la saillie discale lombaire: que le traitement a été appliqué plus tôt, les résultats étaient encore meilleurs.