RECOVERY THROUGH PHYSICAL THERAPY A RADIUS OF FRACTURE ON CHILDREN

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Keywords: physiotherapy, fracture, upper limb, radius, recovery

Abstract: The purpose of this paper is to contribute to the improvement, reducing recovery time for fractures of the radius by applying a specialized and individualized recovery program.

The research was conducted within the Physical Therapy and Swimming Complex from Stefan cel Mare University of Suceava. For research we selected a subject with radius fracture who received physicaltherapy treatment during March-May 2016, the 2 times a day, each for 45 minutes.

Introduction:

Fractures of the forearm and especially the lower end of the radius are considered the most important and common pathologies order Traumatology over time, being one of the current problems facing the Orthopaedic Department in hospitals.

This type of trauma, fracture radius, representing 74.52% of all fractures encountered upper limb, 18.8% of injuries of this type encountered at the locomotor apparatus and 2/3 of all fractures encountered in the forearm. Depending on the prevalence of this type of injury can be compared with fractures of the upper end of the femur.

Radiuses fractures represent 22% of the fractures encountered in adult 4 in 10,000 adults suffer such an injury every year.

The incidence of these fractures is high and young people. Increasing the number of auto accidents increase the number of trauma, this trauma may be considered "fracture of the young athlete" for this reason.

Material-method:

This work was motivated by the formulation of the following assumptions:

- If the application of a recovery program radius fracture can reduce the harm done in the chosen pathology;

- Whether physical therapy may be helpful in reducing joint stiffness occurred as a consequence of trauma and immobilization in the a cast;
- If physical therapy has an important role in preventing and combating these sequels that gives them stiffness of the child.
- Whether through physical therapy may improve quality of life.

Choosing the most appropriate method of research is a requirement imposed by the object and purpose of the research, the need to verify the research hypotheses. Thus, the research methods were: theoretical documentation method, conversation method, observation method, measurement methods (exploration and evaluation), recording method, processing and graphical representation of data method.

The research was conducted within the Physical Therapy and Swimming Complex from the Stefan cel Mare University of Suceava and practical application of chiropractic programs were conducted in the same structure.

Hall is equipped with: bicycle ergometer; Gymnastic mattresses; fixed scale; pulleys; balls; walking sticks; as well as other objects that were helpful to our goal

Overall treatment program had the following objectives:

- practicing with neighboring joints: shoulder, elbow;
- correction and alignments positions of hand and the functional segments;
- obtaining articular relaxation and repose;
- encrease extensor and flexor muscle force;
- restoring daily gestures;
- improving local circulation.

Results and discussions:

TABLE NO. 1. Articular testing

MOTION	INITIAL	INTERMEDIATE	FINAL	NORMAL
Flexion	45˚	60˚	90˚	90˚
Extension	25˚	45˚	75˚	75˚
Radial inclination	5˚	10˚	15˚	15˚
Ulnar inclination	10˚	20˚	38˚	40˚

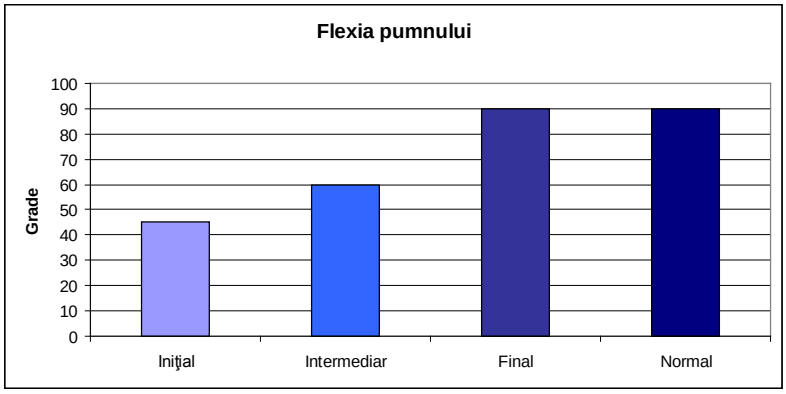

Chart no.1. Graphical representation of movement of wrist flexion

Regarding wrist flexion we can see that movement parameters to final testing are equal to the normal one.

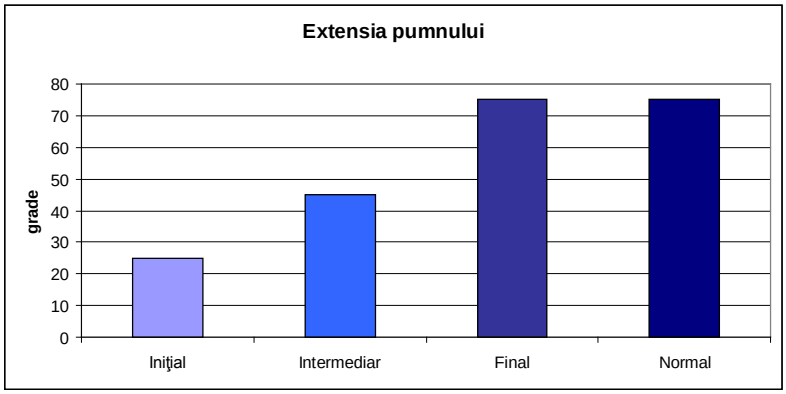

Chart no. 2. Graphical representation of movement of wrist extension

Regarding the extension movement of the wrist we can see that the final testing parameters are equal to normal.

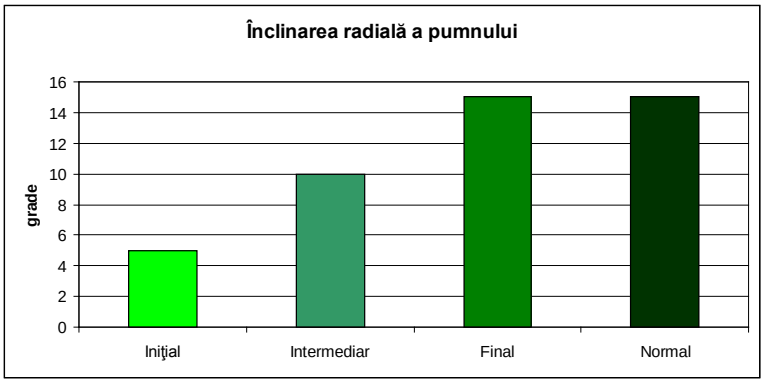

Chart no. 3. Graphical representation of radial inclination movement of the wrist

Regarding the radial inclination movement on the wrist it can be seen that the final testing parameters are equal to normal.

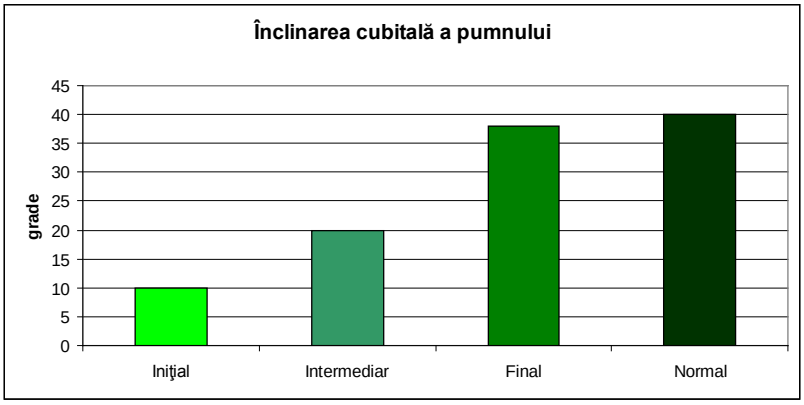

Chart no. 4. Graphical representation of movement by inclination the wrist cubital

As regards movement of cubital inclination in wrist motion parameters we can see that the final testing is very close to normal.

TABLE NO. 2. Muscular testing

MOTION	INITIAL	INTERMEDIATE	FINAL	NORMAL
FLEXION	F3	F4	F5	F5
EXTENSION	F2 +	F4	F5	F5

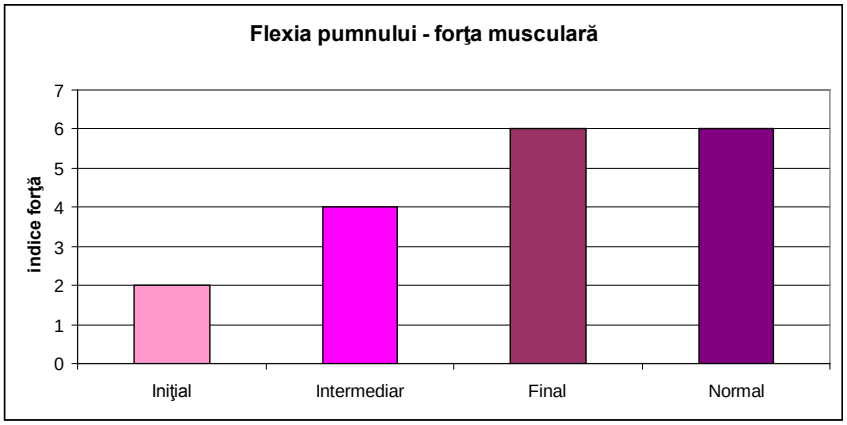

Chart no. 5 Graphical representation of wrist flexion – muscular strenght

Regarding the forearm muscle testing can be seen that flexion of the wrist at the final testing is equal to the normal value.

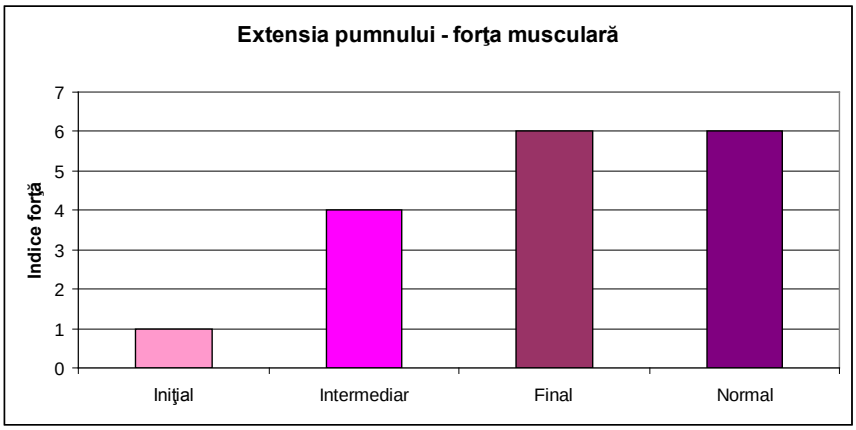

Chart no. 6. Graphical representation of movement of wrist extension – muscular strenght

Regarding the forearm muscle testing can be seen that flexion of the wrist at the final testing is equal to the normal value.

Conclusions:

Analyzing the results obtained in the patient outcomes, we can conclude that the assumptions were confirmed and sustained the paper.

1) Physical therapy and its associated resources lead to healing fracture of the radius and the consequences of this pathology given.

2) Wrist stiffness can have serious consequences if intervention is timely and early physical therapist.

3) Physical therapy has the means to prevent and combat sequels, but must be individualized according to age, sex, type of lesion, the patient's level of training, its general condition.

4) For the results to be relevant, it needs collaboration between therapists - patient.

5) Physical therapy is useful in stopping wrinkles wrist if started at an early stage of the disease

Physical therapy should be dosed as rhythm, duration, strength and especially should be individualized. It can be said that the application of exercise is more important than the other processes used (paraffin, massage etc).

References:

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RECUPERAREA PRIN KINETOTERAPIE A FRACTURII DE RADIUS LA COPII

Cuvinte cheie: kinetoterapie, fractura, membru superior, radius, recuperare

Rezumat: Scopul acestei lucrări este de a contribui la îmbunătăţirea, reducerea timpului de recuperare în cazul fracturilor de radius prin aplicarea unui program de recuperare specializat şi individualizat. Cercetarea s-a desfăşurat în cadrul Complexului de Natație şi Kinetoterapie din cadrul Universității Ștefan cel Mare Suceava. Pentru cercetare am selectat un subiect cu fractură de radius care a beneficiat de tratament kinetoterapeutic în perioada martie - mai 2016, de 2ori pe zi, câte 45 de minute.