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FUNCTIONAL METHODS OF RESTORATIVE TREATMENT OF PATIENTS WITH POSTTRAUMATIC CONTRACTURES OF THE ELBOW JOINT.

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Annotation

The results of treatment of 36 patients with posttraumatic contractures of the elbow joint are presented, among them, 17 patients had restrictions on both flexion and extensor movements, so is the pronacin-supination function of the forearm. After a complex of restorative measures in the elbow joint, good functional results were obtained in 29 (80.6%) patients, satisfactory in 2 (5.5%), unsatisfactory in 5 (13.9%) patients.
Keywords: elbow joint, contracture, physical therapy, physiotherapy, massage.

Introduction

One of the most common complications of excessive silk and supra-silk fractures of the humerus in children is posttraumatic deformity of the elbow joint.

This complication accounts for 47.5% to 80.0% of all distal metaepiphyseal humerus fractures (2,3,4,9).

In addition, children often seek specialized care late after injury and account for 36% to 60% (4). Most authors consider these problems to be the most complex, giving a large number of complications, which are the real problem of excessive silk and supra-silk fractures of the humerus in children.

The formation of the deformity lasts 3-6 months. after a fracture, and it becomes noticeable when restoring movement in the elbow joint.

There are several points of view regarding the mechanisms of varus deformity, which include:

- damage to the distal growth zone after injury;

- Uneliminated displacement of the distal fragment under the influence of upward muscle traction, which entails angular adduction varus mixing (1,4,7,10).

The main reason for unsatisfactory treatment results is the lack of a well-founded treatment algorithm aimed at preventing complications such as improperly fused fractures with limb deformities and elbow contractures (2,3,5,8).

The aim of this work is to study the results of rehabilitation treatment for posttraumatic contractures of the elbow joint.

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Material and methods:

The results of functional treatment of 36 patients aged three to 17 years with posttraumatic contractures of the elbow joint were studied, among them 12 patients had limitation of both flexion-extension movements and pronation-supinacin function of the forearm.

Upon admission to the clinic, the following studies were performed in all patients after receiving anatomical data to clarify the diagnosis:

X-ray of healthy and affected elbow joints in 2 projections, laboratory tests, sonographic examination of both elbow joints and angular vision of the elbow joints.

Conservative treatment for the restoration of elbow joint function in children with the consequences of injuries is of great importance with the right treatment. Treatment was carried out in all patients to restore the function of the elbow joint.

The main goal of the comprehensive rehabilitation treatment was to increase the range of motion and improve the functional state of the neuromuscular apparatus of the elbow joint.

Functional treatment for post-traumatic contractures of the elbow joint in children has a number of features:

1. There is no great reaction when performing therapeutic exercises.
2. Combination of movement restrictions in the joint with deformities of the distal humerus.
3. There are secondary changes in the articular ends of the elbow joint.

A set of recovery measures includes physiotherapeutic procedures, massage and therapeutic exercises.

Of the physiotherapeutic procedures in the treatment of children, UHF therapy (8 procedures), paraffin applications on the elbow joint at a temperature of 40-42º lasting up to 35-40 minutes, for a course of 12-15 procedures were used. Electrophoresis of 3% solution of sodium chloride (or potassium iodide), lidase 64 ED, aloe (1 ml) - 10 procedures. To improve the function of the elbow joint, magnetic pulse electrical stimulation of the muscles of the shoulder and forearm was carried out (10 procedures each).

With conservative treatment, massage of the muscles of the shoulder and forearm was carried out from the first days.

Depending on the nature of the contracture, forearm massage is performed individually.

In case of extensor contractures, disabling massage techniques were aimed at the triceps brachii muscle, toning - the biceps brachii muscle, the brachial and brachioradial muscles. In flexion contractures, a relaxing massage of the anterior group of shoulder muscles and a toning massage of the triceps brachii muscles are performed.

When limiting the supination of the forearm, tonic massage techniques were used for the suppinator muscles, relaxing the pronators. When the pronation was restricted, the pronators were strengthened and the arch supports of the forearm were dissolved. Massage of the muscles of the upper extremity was carried out daily, the course consisted of 20-25 procedures.

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In order to stimulate the body, vitamin therapy (group B) and biostimulants (aloe, irmizole) were used from general tonic agents. In concomitant ischemic and trophic disorders, drugs that improve the local crib (Trental), as well as drugs that improve innervation (Proserin 0.05% solution, 1 ml subcutaneously once a day for 20-30 days) were used.

Treatment results:

The results of treatment were evaluated by joint function, deformity, and X-ray findings.

1. Function of the elbow joint:

a. Amplitude of movements within 145-120°-4 points.

b. Amplitude of movements within 120-60°-3 points.

c. Amplitude of movements within 40°-2 points.

2. Assessment of elbow joint deformity:

a. No deformation - 4 points.

b. varus or valgus deformity of no more than 10°-3 points.

c. varus or valgus deformity of more than 10°-2 points.

The anatomical and functional outcome of the treatment was assessed as good, satisfactory and unsatisfactory.

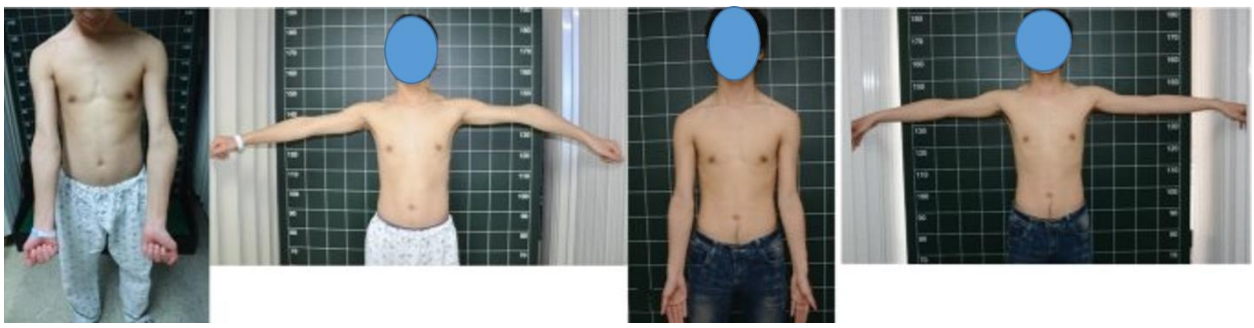
A long-term good functional result was obtained in 29 (80.65%) patients, a satisfactory functional result in 2 (5.5%) patients, and an unsatisfactory functional result in 5 (13.9%) patients.

A long-term good anatomical result was obtained in 19 (52.7%) patients, a satisfactory anatomical result in 12 (33.4%) patients, and an unsatisfactory one in 5 (13.9%) patients.

Findings:

As a result of the study of the function of the elbow joint in children with contractures of the elbow joint, it was established that with satisfactory anatomical results in the area of the elbow joint, it is necessary to carry out comprehensive treatment, including the use of surgical techniques and rehabilitation treatment.

Only complex treatment has a beneficial effect on the restoration of the function and shape of the injured upper limb by eliminating anatomical changes and provides a significant improvement in the range of motion in the elbow joint.



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