

THE NATIONAL FEDERATION OF THERAPEUTIC RIDING AND EQUESTRIAN
SPORT FOR THE DISABLED

Author: Alexander Denisenkov, physician

Address: 139, 5 Teplichny per., Moscow, Russia, 123298

The Significance of Initial Positions in Riding Therapy for Children with Infantile Cerebral Paralysis

Among disabled children there are many persons with disorders of the locomotor apparatus including those as a result of infantile cerebral paralysis. The disabled with infantile cerebral paralysis encounter serious problems, which are difficult to solve, or cannot be solved at all. Such children keep away from the life of society, cannot reconcile themselves to the situation and overcome psychological discomfort, run into obstacles in studies, social life, placing in job, starting a family. So the problem of rehabilitation is basic in the life of these people.

Rehabilitation is a complex multilateral problem, which has different aspects such as medical, physical, psychic, professional, social and economic, personal. The final goal of rehabilitation of the disabled is their social integration and active participation in principal activities of the society.

Riding therapy is one of the forms of rehabilitation of a patient and its complexity consists in concurrent participation in the process of two living beings with their own characters, impulsion, individual relation to the surroundings and to each other with the purpose of achieving maximum interaction between them in future.

Riding therapy being a special form of therapeutic physical training has an important place in the process of rehabilitation, as the practice shows, but in contrast to other forms of therapeutic physical training a child actively interacts with a horse and at the same time joins it in the therapeutic process. The child acquires interest to therapeutic riding and a great desire to participate in rehabilitation actions and it is a colossal moving force in the achievement of a positive result.

I. General Approach to Examination of Initial Positions

Use of different Initial Positions in the course of riding therapy makes it possible to combine several directions of rehabilitation what is rather a unique aspect of therapeutic physical training that is only typical of riding therapy.

Every person participating in the process of rehabilitation must know what we mean when speaking about basic Initial Positions. In this connection we describe positions on which to base a great variety of rehabilitation actions.

1. Initial Positions of a rider sitting on horseback without assistance. The instructor stands by. The assistant stands by on the other side.

Initial Position 1:

- Sitting on horseback facing forward (a usual seat).

Initial Position 2:

- Sitting on horseback facing backward.

Initial Position 3:

- Sitting sideways:
 - a) facing to the right in the direction of movement;
 - b) facing to the left in the direction of movement.

Initial Position 4:

- Lying on the back along the horse:
 - a) with the head to the horse's head;
 - b) with the head to the horse's tail.

Initial Position 5:

- Lying on the belly along the horse:
 - a) with the head to the horse's head;
 - b) with the head to the horse's tail.

Initial Position 6:

- Lying on the belly across the horse:
 - a) with the head to the right in the direction of movement;
 - b) with the head to the left in the direction of movement.

Initial Position 7:

- Lying on the back across the horse:
 - a) with the head to the right in the direction of movement;
 - b) with the head to the left in the direction of movement.

2. Initial Positions when the instructor sits on horseback with the patient. He can sit facing the horse's head or facing the horse's tail. It depends on the age of a rider, the

severity of a disorder and particular rehabilitation aims, which have their own sense loading.

Facing the Horse's Head:

Initial Position 8

1. Behind the back of the rider;
2. Face to face with the rider;
3. The rider sits sideways:
 - a) facing to the right in the direction of movement;
 - b) facing to the left in the direction of movement.
- 4.a. The rider lies on the back along the horse with his head to the horse's head;
- 5.a. The rider lies on the belly along the horse with his head to the horse's head;
6. The rider lies on the belly across the horse:
 - a) facing to the right in the direction of movement;
 - b) facing to the left in the direction of movement;
7. The rider lies on the back across the horse:
 - a) facing to the right in the direction of movement;
 - b) facing to the left in the direction of movement.

Facing the Horse's Tail:

Initial Position 9

This variant includes all 7 points of Initial Position 8 but the most important positions are Initial Positions 9.4.b and 9.5.b, which are not shown in Initial Position 8.

II. Changing the Support Surface

This feature complicates or facilitates performing exercises from the same Initial Positions and significantly changes the effect of riding therapy. When selecting exercises for different forms of infantile cerebral paralysis, it is important to consider the following aspects:

1. Increasing the Support Surface

The rider sits in the saddle according to Initial Position 1 resting his feet in the stirrups and holding the front arch of the saddle or breast belt; in this case the stirrups, front arch or breast belt increase the support surface and the saddle increases its stability.

2. Decreasing the Support Surface

Initial Position 1:

- a) Using stirrups without having hold, in the saddle;
- b) Without using stirrups but having hold of the front arch of the saddle;
- c) Without using stirrups, without having hold, in the saddle;
- d) Without using stirrups, without having hold, and without a saddle (the decrease of support stability).
- e) Variants exist with the decrease of support stability (without a saddle) but:
- f) Using both stirrups and a vaulting belt at the same time;
- g) Using stirrups suspended to a vaulting belt without having hold of it;
- h) Using a vaulting belt without stirrups.

3. The Additional Support "Floating Arm":

When taking exercises in riding therapy, the instructor's arm can be the most important link in provision of such support.

The dynamic balance of a rider can be changed as a result of changing the position of the point of additional support what is a serious moment in the process of forming a correct seat.

As an original analogue of "supporting arm" the instructor may use a ball, which lies on the horse's withers whose diameter also influences the balance change and creates additional load.

At the same time it can be an Initial Position in taking exercises with a ball with subsequent passage to Initial Position 2 through Initial Position 3 without losing a ball.

III. Special Exercises for Different Forms of Infantile Cerebral Paralysis

(on the basis of different Initial Positions, which are adequate for every form)

I want to draw your attention to a diversity of approaches to riding practice from different Initial Positions with moving support with horizontal, diagonal, and vertical fluctuations and examine some of them.

On the basis of predominance of specific neurological disorders it is possible to distinguish individual forms of infantile cerebral paralysis. The forms characterized by muscular hypertension are more frequent. As usual upper and lower limbs are affected and depending on prevailing affection and the body side we can distinguish individual clinical forms such as diplegia, hemiplegia, double hemiplegia.

Among other forms of infantile cerebral paralysis hyperkinetic syndrome, movement disorder, less frequently a hypotonic form so called atonic and astatic syndrome are more common. However symptomatology is often so diverse that it is difficult to diagnose any specific form. Nevertheless the form of infantile cerebral paralysis is of great significance in riding practice and according to the form we can subdivide exercises as follows:

1. Exercises to produce dosed (including minimum loads what is very important) muscular tension;
2. Exercises to produce differentiated tension (and relaxation) of individual muscles and required muscular groups;
3. Exercises to rehabilitate and improve coordination;
4. Exercises to decrease the amplitude and frequency of hyperkinesis;
5. Exercises to rehabilitate or make an attempt to form the applied movement acts anew (standing, walking, manipulations with domestic things, etc.).

1.2. Exercises to produce dosed and differentiated tension (and relaxation) of individual muscles and required muscular groups are used more often in the case of hemiparetic forms of infantile cerebral paralysis and spastic diplegia.

Hemiparesis

Consider Initial Position 1.a with change of the length of a stirrup on either side:

1. Shortening on the side of paresis means the dosed tension of a paretic iliolumbar muscle;

Note: The more is the difference between the length of stirrups the great is the training load; at the same time the shortening of a stirrup reduces tension in adductors of the thigh and in its turn this enables the lumbar region of the backbone to deflect backward easier and adapt to motions of the horse's back what is important to form and keep the balance.

Spastic Diplegia

Initial Position 1.a

Changing the length of stirrups on both sides:

1. Shortening means the dosed tension of paretic iliolumbar muscles on both sides;

Note: As it was stated, the training load is increased on both sides; it reduces tension in adductors and enables the lumbar region of the backbone to deflect backward much easier and adapt to motions of the horse's back what is very important to form and keep the balance;

2. Elongation means the dosed tension of paretic adductors of the thigh;

Note: The length of stirrups also effects the load expression; at the same time the tension in the iliolumbar muscles is reduced and the lumbar region of the backbone is loaded more heavily what complicates adaptation to motions of the horse's back and as a result increases the training moment in keeping the balance; changing the length of stirrups in the first and second case makes it possible to strain the muscles having opposite functions, i.e. antagonistic muscles.

Initial Position 1.b.

Exclusion of the iliolumbar muscles from work means that keeping in the saddle takes place in virtue of the balance, i.e. a rider tries to match his own centre of gravity with that of a horse and at the same time to match it with rhythmic motions.

Initial Positions 1.c and d increase the effect of riding therapy.

By the example of Initial Position 1 with a different degree of decreasing the support surface we can observe a great variety of received effects only in one Initial Position with minimum corrective actions.

3. Exercises to rehabilitate and improve coordination are used more often in the case of an atactic form of infantile cerebral paralysis.

These exercises are as follows:

- Exercises to increase precision and accuracy;
- Ballistic exercises;
- Exercises with increasing the weight of a working segment.
 1. On a standing horse.
 2. On a striding horse.

Initial Position 1 with a different degree of decreasing the support surface is especially important because it complicates the exercises and thus enhances a training moment; Initial Position 2 complicates the exercises by virtue of disorientation as a result of movement which is opposite to a frontal forward motion; Initial Positions 3a and b complicate the exercises in virtue of keeping the balance when a rider feels clearly that his centre of gravity moves aside. Initial Positions

8.1,2,3a and b have a special place in the work with little children and patients who cannot seat on horseback without assistance.

Exercises to Increase Precision and Accuracy

It is necessary to begin from the most simple tasks that can be performed by a rider now and achieve the required quality of fulfilment showing patience and understanding of the importance of a step-by-step movement to an outlined aim. One must always remember about the expressed liability of the psychoemotional sphere of riders with a particular form of infantile cerebral paralysis and consequently serious failures at the early stage can influence seriously the whole rehabilitation process and even entail a negative result.

1. Hitting the Mark with the Arm (finger or hand).

a) Touching the parts of the face and body with each hand in turn.

Note: Besides, the said exercise forms the space notion in the process of developing orientation in the body schema and environment and determining right and left what is of great importance in the case of hemiparesis.

b) Hitting a fixed mark.

c) Hitting a moving mark, namely the mark moves in the direction of the horse's movement; the mark moves in the opposite direction.

2. Hitting the Mark with a Stick.

a) Hitting a fixed mark.

b) Hitting a moving mark.

Ballistic Exercises

1. Throws

It is necessary to have a set of balls of different weight and size. In this instance one must train a throw itself without trying to achieve a definite goal of a throw. This exercise enables to increase the volume of motions in joints.

Initial Position 1 with a different degree of support as well as Initial Positions 2, 3, 8.1, 8.2, 8.3.

A ball throw with the retention of stability in a sitting position after a throw of an easy weight, increased weight, alternative weights.

a) A throw with both arms from behind the head;

b) A throw from the left and from the right.

2. Throwing in the Mark

Initial Position 1 with a different degree of support as well as Initial Positions 2, 3, 8.1, 8.2, 8.3;

Throwing a ball with the retention of stability in a sitting position after a throw.

a) Throwing a ball with both arms from behind the head;

b) Throwing a ball with either arm from the left and from the right.

Exercises With Increasing the Weight of a Working Segment.

Weights attached to the forearm and shoulder, the thigh and shin make it necessary to "send" enhanced afferent signals to the centre and demand other conditions to fulfil the exercise.

Initial Positions 1 c and d, 2, 3 a and b, 8.1, 8.2, 8.3 a and b.

The Weight on the Forearm and Shoulder.

1. Exercises to increase precision and accuracy.
2. Ballistic exercises.
3. Breathing exercises, etc.

The weight on the Thigh and Shin.

1. Initial Position 1 a, b, f, shaking the legs.
2. Passage to Initial Position 2 through Initial Position 3 a or b (the "scissors" exercise).

4. Exercises to decrease the amplitude and frequency of hyperkinesis are used more often in the case of a hyperkinetic form of paralysis.

1. Detorsion Exercises.

Torsion motions represent slow rotational motions induced by cramps of the muscles, which carry out rotational motions of the head, body, proximal regions of the arms. The patients take a faulty posture which is characterised by a twist round a vertical axis of the backbone, compensatory inclinations and throwing back the head and body, the rotation of the arms inside behind the back. Such unnatural motions of the body slacken or fade away when reclining or walking backward.

In this connection the most interesting exercises are those being practised in Initial Positions 2 (modelling of walking backward) and also in Initial Positions 4 a and b, 5 a and b (creating the effect of maximum relaxation).

5. Exercises to Rehabilitate or Form the Applied Movement Acts Anew (standing, walking, manipulations with domestic things, etc.).

Even minimum improvements in the motor sphere can be treated as a success which may form a positive basis that enables the instructor and his patient to face the future with optimism.

Not the least of the factors is the age of children; the younger are the children the better results may be achieved.

Whatever the age of a patient, it is necessary to find out the level of his motor development. And if the patient cannot go down on all fours, creep, or hold the head, the training must begin from these exercises.

The correction program must "go" a little ahead and envisage the use of such exercises which could correspond to a higher level of motor development (not possible at the present time).

Consequently, the main task is a step-by-step motor development in the same succession which is typical of healthy children and particular auxiliary tasks are formulated according to this aim in view.

Consider several exercises for the children with a pronounced delay in motor development whose training is more interesting from Initial Positions 9 and 8.

I. Exercises to Form an Upright Position of the Head.

(without a saddle, with a horse-holder and his assistant(s)).

1. Initial Position 9.4.b

- The child takes the "embryo" posture (the legs are bent and pressed to the belly, the arms are crossed on the breast or around the knees) and the instructor lifts slightly the child's shoulders; the exercise promotes the child to lift the head.
- The instructor pulls up the child by the shoulders; the exercise stimulates the lift of the head.
- The instructor pulls up the child by the forearms or hands; the exercise stimulates the lift of the head and then the trunk.
- The child's legs are bent, pulled apart, and rest against the horse's back, his hands are pressed (attached) to the ankles; the exercise stimulates the lift of the head.

- The child's legs are on the horse's back and the instructor presses them in the point of the knee joint, takes the child's hand and pulls forward and upwards; the exercise stimulates the lift and turn of the head.
- The instructor holds the child by the arms which are straightened and raised forward, then he lifts the child by either hand in turn and turns him to the side; the exercise stimulates the ability to turn the head.

2. Initial Position 9.5.b

- The child's head is turned to either side; the instructor draws attention of the child to any sounds or a bright object and tries to make him turn the head without assistance on the side of an irritant.
- The child's arms are stretched forward; the instructor presses the child's pelvis and his assistant puts his hand under the child's shoulders in the point of the elbow joints (at first the child's chin may lie on the assistant's hand but at a later time the assistant moves his hand away) and the child holds his head suspended.
- The child's arms are bent in the elbow joints, the shoulders are stretched; the instructor offers the child to clutch an object in his hands; the exercise stimulates the ability to stretch the straight arms forward and lift the head at the same time.

3. Initial Positions 9.6.a and b

- The exercise stimulates the ability to lift and straighten the head.
- The exercise stimulates the ability to lift and turn of the head by virtue of drawing attention of the child to any sounds or bright objects.

II. Exercises to Form Control over Head Positions and to Develop the Reactions of Support and Balance with the Arms

Initial Position 9.5.b

- The instructor puts the child's arms bent in the elbow joints under the breast; the exercise forms a feeling of support.
- The instructor offers a toy to the child taking the above position; the exercise makes the child stretch forward the left and right arm in turn trying to retain support on the other arm.
- The instructor fulfils the exercise on a more affected arm of the child taking the above position, the said arm being moved aside and forward; the child manipulates a toy with the other hand.

- Holding the child under the breast, the instructor lowers the child until being supported on his hands; the exercise forms a differentiated feeling of support, promotes tension of different extensors of the upper limbs.
- The exercise with support on the forearms; the instructor pushes the child slightly on the right and on the left and upsets his balance.

III. Exercises to Overcome Flexion and Extension Settings of the Upper Limbs

Initial Position 8.1

- A complex of passive and passive and active exercises.
- The instructor moves the straight arms of the child backward from the "in front" position;
- The instructor lifts the straight arms of the child up through the sides and returns them to the "down" position.
- The same exercise but the instructor fixes the child's arms in the highest point (the instructor "stretches the arms" of the child and lifts him slightly for 1-3 seconds);
- The instructor lifts the left and right arm of the child in turn and fixes it in the upper position;
- The instructor lifts the straight arms of the child up through the "forward" position;
- The instructor makes concurrent circular motions with the child's arms forward and backward;
- The instructor moves the straight arms of the child forward in turn: "a stroke" with the right arm, "a stroke" with the left arm (as if swimming);
- The instructor fulfils the same exercise moving the child's arms backward;
- The instructor moves either arm of the child forward and concurrently makes a circular motion with the other arm backward;
- The instructor fulfils the same exercise moving the child's arms in the opposite direction.

IV. Exercises to Form the Ability to Sit

1. Initial Position 8.1

- The instructor holds the child under the elbows of his straightened and turned outside arms;
- The instructor clutches the child's arms, moves them backward and turns outside;

2. Initial Position 8.2.3.a and b

- The instructor moves the child taking the indicated Initial Positions so that the movement is accompanied by an appreciable change of the centre of density of the child's body.

Note: Sitting on horseback makes the child adapt his body to a changing situation and it promotes the development of an individual perception and proportionally dosed tension of the required muscular groups; irritators which influence the sense organs are worked through in continuous succession of motion phases and this process is accompanied by a gradual emergence of motor reactions.

V. Exercises to Form the Ability to Sit Down without Assistance

1. Initial Position 9.4.b

- The instructor clutches the child's arm and pulls it diagonally to the opposite side with the following passage to a sitting position;
- The instructor gives the child an object and when the child clutches it, he pulls it diagonal to the opposite side with the following passage to a sitting position.

Successful results in the process of correction of motor disorders promote the changes in the social and psychological status, lead to higher self-appraisal, life activity and greater motivation in rehabilitation.

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Author: Noemy Robert, physician

Address: 139, 5 Teplichny per., Moscow, Russia, 123298

Ride Therapy as a Special Form of Therapeutic Physical Training

This report is aimed to define a real, logically grounded place of riding therapy in a number of therapeutic and rehabilitation methods and means.

The use of riding as a therapeutic and rehabilitation means has been known to the mankind from ancient times and this method finds successful application in the majority of countries all over the world where the traditions and culture of horse-breeding, equestrian sport, equestrian hunting, etc. are at a high level. However, as followers of this wonderful method, we cannot help but note that the official medicine treats riding therapy with indifference and even disregards in spite of its wide spread and growing popularity.

The high medical circles which do not reject the method and at the same time do not recognize it officially have closed access for riding therapy to the sanctum sanctorum of medicine similar to the methods of extrasensorics, sorcery, healing, etc.

The situation is quite true for the majority of countries including those where riding therapy has gained a wide spread and a well-deserved recognition and especially for those countries where this method is at the early stage of development.

This phenomenon can be explain in part by the fact that the results of riding therapy are often perceived as a miracle, seem inexplicable, almost mystic, and sometimes it is difficult to formulate clearly the mechanism of action of riding therapy and its positive effect on the patients.

By means of observation and examination of an acute effect and delayed results of riding therapy as well as taking into account the opinion of scientists who have studied the effect of riding therapy with the help of modern scientific medical methods (Tzveraba D.M., Doctor of medicine, Georgia), we have ascertained the justice of the statement made be professor Tzerava and others that riding therapy is similar to therapeutic physical training by its means and effects though they have significant differences.

Riding therapy is an effective and universal method of cure and rehabilitation of patients with different somatic and psychic diseases, disorders and developmental defects.

In essence, riding therapy is one of the forms of therapeutic physical training because it is based on the motion but it has a specific form as it uses such an unusual sport apparatus as a living horse.

Consider common and distinct features of riding therapy and therapeutic physical training.

Therapeutic physical training as well as riding therapy are deeply rooted in history. The earliest records of treatment with the help of motion and physical activity were found in Chinese manuscripts (2000-3000 B.C.). The records concerning the benefits of riding as a healing means for diseases and wounds, and also the bouts of melancholia were found later in the works of Hippocrates, a famous ancient doctor (460-377 B.C.). The works of both authors had been consigned to oblivion for the long time of the Middle Ages and therapeutic physical training was revived at the close of the 19th century and riding therapy was revived in the 20th century.

As any form of therapeutic physical training, riding therapy means treatment with the aid of motion which is a physical need, natural regulator and stimulator of vital activity.

It is impossible to imagine vital activity of a person, cognition of the environment, advancement of the mankind on the way of progress without motion, muscular efforts, and physical activity.

Physical activity is one of the indispensable conditions of life not only in its biological essence, but also in the sense of social existence and it is treated as physical and biological need of the body at all stages of ontogenesis.

A healthy child develops and learns the surrounding world in constant motion, coming into close contact with the environment and as he grows up, cognition with the help of arms, eyes and ears begins to prevail over cognition by means of touch, taste sensation, etc.

A child who was born with disorders of physical status inevitably begins to drop behind in his psychic development even if his intelligence is normal; the reason for this is a shortage of physical activity induced by an illness.

The most important factor of correction of the insufficiently active mode of life induced by an illness is physical activity which must be regulated and dosed according to medical indications.

The method using different forms of physical activity with the aim of therapeutic and rehabilitation effect on the patients is designated as therapeutic physical training in Russia and a similar method is designated as kinesitherapy (treatment by motion) in other countries.

A nosological and organosystemic approach includes different forms of therapeutic physical training, which are as follows:

- Hygienic morning exercises;
- Therapeutic gymnastics;
- Exercises in water;
- Walks;
- Nearby tourism;
- Health-giving run;
- Applied sport exercises;
- Sport games;
- Therapeutic riding.

When choosing one or other form of therapeutic physical training, one or other form of exercises, consideration must be given to certain criteria:

- a) An integral approach to the estimation of the patient's state taking into account all peculiarities of his disease (nosological principle);
- b) Taking into account clinical and pathogenetic characteristics of an illness;
- c) Taking into account the age of a patient and the level of his training;
- d) A clear definition of therapeutic tasks individually for every patient;
- e) A careful selection of special exercises depending on therapeutic tasks.

In doing so, it is necessary to consider compulsory rules, namely, to pass from the simple to the complex, from the easy to the difficult, from the known to the unknown, and of great importance is the fact that the instructor must keep strictly to indispensable conditions when practising any form of therapeutic physical training that is:

- Constant medical control over the adequacy and efficiency of physical loads and their correction if necessary;
- Active and conscious (where possible) participation of a patient in the process of rehabilitation;
- Rational combination of any forms of therapeutic physical training with other methods of complex rehabilitation (massage, medicines, social and creative methods, psychological and educational methods, etc.).

Therapeutic physical training enables to solve the most important problems, namely:

- a) To counteract a negative influence of hypokinesia induced by a disease and to develop physical activity;
- b) To adapt the patient's body to loads;
- c) To promote the rehabilitation of defective functions;
- d) To help the social and everyday rehabilitation, adaptation;
- e) To form new functions and to rehabilitate lost functions.

All the aforementioned can be confidently ascribed to riding therapy. As one of the forms of therapeutic physical training, it possesses all possibilities of therapeutic physical training, it includes all means of using the method, regularities, demands, rules and precautions. Indications and contra-indications to use the method are almost the same.

As already noted, riding therapy is a special form of therapeutic physical training and a specific character of its effect on the patient is directly expressed in the interaction with a "specific" sport apparatus, namely, a living horse which is a powerful, emotional, strong and affectionate animal and its main and real distinction from other forms of therapeutic physical training lies in this peculiarity.

It is very important to consider that the success of treatment depends in many respects on the interaction of the two living beings that participate in this action: the patient and the horse. Thus it is very important to match the "patient - horse" pair. This problem is an urgent subject of the theory of riding therapy at present.

A fundamental distinction of riding therapy from other forms of therapeutic physical training lies in the fact that riding therapy provides for concurrent work virtually of all muscular groups of the rider's body and it occurs at a reflex level because when sitting on horseback and moving with the horse, the patient tries to keep the balance and activates both healthy and affected muscles.

Besides, none of the sport apparatuses excites such a powerful, differently directed motivation which accompanies riding therapy; on the one hand, the patient experience a great desire to mount the horse, to feel himself a rider, to overcome his fear, on the other hand, he is not sure of his strength and is afraid to fall off. This motivation raises the efforts for strong-willed activity which helps not only to restrain a feeling of fear but also to decrease the quantity and amplitude of hyperkinesis (in the case of infantile cerebral paralysis) what in its turn gives the possibility to teach the patient how to build up a proper behavioural background.

A stable positive emotional background, which accompanies riding therapy, has its origin in the interest for the horse, the admiration for its beauty, the joy of contact with the horse and these features are not always typical of other forms of therapeutic physical training.

But the most surprising and unique feature of riding therapy consists in its ability to exert a positive simultaneous effect on the physical status of a patient and his psychoemotional sphere. The reason is that riding therapy effects the patient through two potent factors, such as psychogenic and biomechanical (Ruhadze, Candidate of medicine).

The effect of a psychogenic factor is composed of the emotional contact of a rider with a horse as the interaction and especially riding gives the rider a joyful and proud feeling of victory, self-reliance. This is accompanied by a positive emotional effect of a large space of a riding hall or ground in the open air because it is well known that such patients lead the life of a recluse as a rule. Besides, we must take into account a personal contact with a kind and reliable instructor who often becomes the most authoritative and dear person for the patient. Finally, these children get the possibility to make friends with other children of the same age as they usually deprived of such a pleasure being locked in their flats.

The effect of a biomechanical factor is closely connected with the following aspects:

- a) When mounting a horse and sitting on horseback, the centre of gravity and the point of support of any person including a healthy one sharply moves and the rider feels fluctuations of the horse's back in three mutually perpendicular directions. All these factors cause reflex contraction of all muscles of the rider to keep the balance including active contraction of healthy and affected muscles, i.e. the blood supply of the muscles improves and as a result the muscular system develops more intensively.
- b) The powerful muscular system of the animal beneficially effects the rider as it massages the affected, atrophied or spasmodic muscles of the lower limbs improving blood circulation and heating them (the temperature of the horse's body is 1-1.5 degrees higher than that of a human being).
- c) Rhythmic and smooth motions of a striding horse reduce tension and excitation associated with psychiatric deviations, relax the patient and balance his emotional state.

A high therapeutic potential of this method is determined by its universal, multilevel and wide effect on the patient which promotes general complex activation and mobilisation of physiological, motivating, psychological resources of the body and also activates the cognitive sphere of the patient's psyche.

We can give even more examples showing the advantages of riding therapy over other forms of therapeutic physical training but our task is to confirm the idea that riding therapy is really a specific form of therapeutic physical training and on this ground it must take its valid place among other means and methods of therapy and rehabilitation of a variety of diseases emphasizing the fact that riding therapy is especially effective for rehabilitation of children with the most serious diseases when this method becomes the last hope of the patient.