



Hippotherapy: A Rehabilitating therapy for the Rett Syndrome A Case Study

“Some dreams seem impossible. Then they seem improbable. And when we summon the will, they become inevitable”

Christopher Reeve

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Hippotherapy integrates different professional disciplines: medicine, psychology, pedagogy and sports. Its therapeutic function is aimed at psychological, sensorial and social dysfunction. **It has a great importance** in different areas, such as behavioral, neuromuscular and pedagogical development because it develops sociointegrative qualities like analogical communication (not verbal), tolerance, patience and responsibility, thus promoting the integration of hippotherapy to the learning area, specially, in special education.

Our work is based on a case study of a fifteen year old RS. Taking as a starting point her specific difficulties, which result in a moderate cognitive discapacity, attention – span interruptions, panic attacks, muscular – tone dysfunction, and impaired voluntary and involuntary movements. Always basing our work on her positive characteristics which translate in to showing interest in people, sounds – especially musical sounds - preservation of her cognitive capacity, which nevertheless allows for some capacity regarding sensorial stimuli reception, discrimination, cooperation and communication.

Based on these aspects we have developed a series of goals as the following:

To:

- Ø Reduce ataxia
- Ø Stimulate hand use to assist in mobility
- Ø Achieve better balance reactions
- Ø Promote better coordination and balance
- Ø Influence scoliosis
- Ø Give better range of motion in the joints
- Ø Reduce muscle pain

- Ø Counteract spasticity
- Ø Increase protective responses
- Ø Increase her proprioception and sensitivity and her sensory motor development
- Ø Hippotherapy induced relaxation to facilitate freedom of movement
- Ø Improve walking and setting skills
- Ø Improve body awareness
- Ø Increase socialization with peers

In February 2003 we began to work hydrotherapy with Niurka. For the first time in her 14 years she received physical training. These are her evaluation results: general hypertonia, ataxic movement with a tendency to move laterally and always with her head down. She had no protective response. She wouldn't fix her stare and hyperventilated when strangers would approach her. She would injure herself when her anxiety level increased, scoliosis, and constipation.



In July 2003 we began to work hippotherapy. We began doing backriding, because she couldn't keep her balance on the horse and she also started physical therapy before horse



backriding. In order to develop a wider range motion in her joints, and ease muscular pain, as well as improve her motor skills and increase the strength and endurance of body parts. It was almost impossible for her to do her physical therapy on the horse because of the pain she had to endure when flexing and extending her arms and legs.

After seven month of intensive work Niurka is able to:

- Y Flex and extend her legs, arms and torso
- Y She can adopt a supine position transversally on the horse
- Y She can adopt decubitus prone position transversally on the horse
- Y She lays back down on the floor and on the horse
- Y She improved her balance
- Y During the exercise she minimizes hand stereotypes and increases functional hand use, also she can get hold of the horse's mane during medium walk and trot.
- Y Her scoliosis has been reduced two-degree.



- Y She can lift her foot to go over an obstacle
- Y Her ataxic movement was reduced becoming closer to normal locomotion patterns.
- Y She eliminate constipation
- Y She has gained more joint mobility
- Y She regulates her response to sensorial stimuli
- Y Her comprehension skills have also increased when following directions
- Y Her hyperventilation has decreased
- Y She has stopped injuring herself
- Y She is able to walk without help
- Y She has improved her communicative intentions
- Y She can stand up from the floor, using her hands as support
- Y She increased socialization with peers, she hugs, smiles and can locate stare at people when they talk.

Our team, made up of a physical therapist, a music therapist, a riding instructor and myself strive to find alternative methods which can help girl with RS to lead a happier life, fully integrated to a society which still has little or no knowledge of the immense world of these silent angels.



NIURKA 15 YEAR OLD



GLENDA 6 YEAR OLD

Note: Our team is working whit three to five RS cases in Havana City. Unfortunately, due to the low incidence rate of this disorder in our country, we don't have an institution, which can provide the right assistance to these girls.