Effects of Hippotherapy On Children With Low Tone

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Introduction

- Hippotherapy means therapy with the help of a horse, and is treatment strategy used by physical therapists, occupational therapists, and speech therapists.
- The horse is used as a modality to improve the patient’s impairments.
- One of the aims of Hippotherapy is to make the rider’s trunk receptive and responsive to the proprioceptive feedback transferred from the horse to the rider.

Background

- Hypotonia refers to a decreased resistance to passive movement and is a common diagnosis in infants and children.
- Hypotonia may be caused by peripheral and central nervous system disorders and metabolic, neuromuscular, and connective tissue disorders.
- As well as decreased muscle tone, children with hypotonia may also exhibit decreased strength, joint hypermobility, increased flexibility, delayed acquisition of independent walking and abnormal walking patterns.

Clinical Relevance

- Postural control is recognized as a prerequisite for performing walking, reaching, and ADLs, and may be developed through Hippotherapy.
- The most prominent effects of Hippotherapy include greater strength and agility, improved balance and posture, weight-bearing ability, and improved circulation, respiration, and metabolism.
- The complex sensory motor stimulation offered by the horse’s movement is very difficult to reproduce in a traditional therapy setting.
- Hippotherapy can also help the children improve their self confidence, and improve their social interaction skills.

Evidence

- It has been shown that an adult horse can provide up to 110 postural perturbations to the child in 1 minute of therapy.
- One study showed that children with Down Syndrome improved in gross motor behavior, particularly for walking, running, and jumping using the GMFM during an 11-week trial of Hippotherapy.
- In a pilot study looking at a child with developmental delay, due to microcephaly, during a 6-month period the child required less assist (max to minimum assist) when changing positions on the horse.
- In a survey given to the parents of the children participating in a 6-month Hippotherapy program all the parents who responded reported their child showed improvement in a variety of activities and functional tasks in the home environment.

References