Life of a Child with Hypotonia

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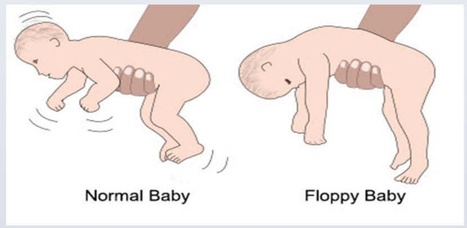
Introduction

The disorder is found in infants, and not many people heard of this disability. People need to be informed about Hypotonia so that it will benefit research to develop a cause and cure to Hypotonia. Also, in our field we are able to educate parents and therapists about what is Hypotonia, and develop techniques for the child to be able to develop properly.

What is Benign Congenital Hypotonia

Benign Congenital Hypotonia, also known as "Floppy Baby Syndrome", is the medical term for low muscle tone.



What is Muscle Tone?

According to the Hand Skills for Children website

- The brain sends signals via nerves to the muscle who direct the amount of tension a muscle will have at rest.
- The muscle tone allows the muscle to contract
- If a muscle has very low muscle tone, then more energy is required to contract the muscle.
- The same muscle contraction might not be held for a long time.
- For a child with Hypotonia, the increased energy spent in activating these muscles can lead to fatigue sooner than others.

Differences between Muscle tone and Muscle Strength:

- Many people believe that the cure for Hypotonia is to exersize more and lifting weights however they are different.
- However, according to Leyanaar, (2005) tone is the measurement of resistance of muscles to stretch (Page 4)
- Weakness is the measurement of strength
- Hypotonia is found typically with normal strength levels

Symptoms

An infant with hypotonia exhibits a floppy quality or "rag doll" feeling when he or she is held.

- Infants may lag behind in acquiring certain fine and gross motor developmental milestones that enable a baby to hold his or her head up when placed on the stomach, balance themselves or get into a sitting position and remain seated without falling over.
- There is a tendency for hip, jaw and neck dislocations to occur.
- Some children with hypotonia may have trouble feeding, if they are unable to suck or chew for long periods.
- A child with hypotonia may also have problems with speech or exhibit shallow breathing.

How it Affects Development

Physical Development:

Gross Motor Skill Development

- Less endurance on physical activity
- Decrease in strength
- Poor reflexes
- Flexible joints
- Delay in gross motor skill development

Fine Motor Skill Development

- Less endurance on writing, coloring, etc.
- Messier handwriting, cutting, coloring
- Have more difficulty with dexterity

Table I: Scores on Bruininks–Oseretsky Test of Motor Proficiency (BOTMP) of children diagnosed with BCH as infants and control children

	BCH group (N=25) Mean (SD)	Control group (N=26) Mean (SD)	t
Gross Motor Subtests			
Running Speed and Agility	4.44 (1.95)	5.36 (1.95)	−1.66
Balance	19.16 (6.60)	21.37 (4.57)	−1.62
Bilateral Coordination	7.16 (3.14)	9.30 (5.54)	−2.28[a]
Strength	15.24 (6.14)	18.42 (4.79)	−2.15[a]
Gross Motor Composite	46.00 (14.73)	54.61 (10.51)	−2.41[a]
Upper-Limb Coordination	11.28 (5.23)	12.03 (5.76)	−0.85
Fine Motor Subtests			
Response Speed	3.84 (2.47)	4.07 (1.85)	−0.38
Visual–Motor Control	18.28 (4.07)	18.58 (3.88)	−0.09
Upper-Limb Speed and Dexterity	28.20 (4.71)	30.50 (5.48)	−1.60
Fine Motor Composite	50.53 (8.32)	52.96 (8.65)	−1.11
Battery Composite	107.60 (23.77)	110.61 (19.90)	−1.96[b]

[a] P<0.05
[b] P=0.055.

A comparison of motor skills between BCH (Benign Congenital Hypotonia) children age 8 with control children without BCH (Parush, et al., 1998)

Techniques:

Visit a physical therapist for Gross motor development

- Promote athletic activity, such as swimming, but take frequent breaks so that the child would not fatigue
- Encourage the child to participate in sports without a team or not competitive such as racquetball, bowling, horseback riding

Visit an occupational therapist for Fine motor development

- Give the child goals to encourage writing by writing 3 sentences at a time.
- Find ways to encourage fine motor skills to children through games, such as finding pennies in putty or matching games

Cognitive Development

- Does not effect intelligence
- Since the child might not like writing for long periods, he/she might fall behind in classes
- When speaking to the child, the child understands the language, however the child might have difficulty replying
- More about this in Language development

Techniques:

- Reading to the child every day and talking helps the child comprehend what is going on
- Suggest typing up assignments or have the child write the assignment and have the teacher retype the answers for state testing
- Give more time on writing assignments or allow frequent breaks.

Language Development

- The muscles that are a part of speaking are also affected
- The child might be later developed in knowing how to speak
- Once the child is able to speak, the child might struggle with mispronunciation or fluency while speaking

Techniques

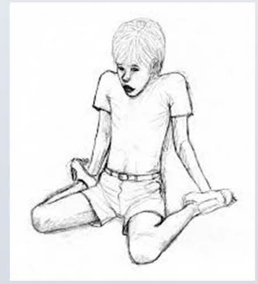
- Take the child to a Speech Therapist
- Reading with the child everyday and talking to the child
- Take turns reading a book together and have patience for the child while reading
- If the child does not talk yet or talk unclearly, teach the child some basic American Sign Language to not have communication troubles

Life with Hypotonia

- I grew up with Benign Congenital Hypotonia, as well as my mother and one of my 3 younger siblings
- Hypotonia is sometimes found with genetic heritage
- My sister and mother dislocate joints easily due to hypermobility.
- My sister and I still work hard to enjoy hobbies we enjoy

Habits they might have:

- They would like to sit in a "W" shape to help maintain balance, though this is bad for the leg muscles
- When they sit in a chair, instead of having flat feet they have raisen ankles
- Difficulty to do athletic activities, so they play through puzzles and reading books



The way children with Hypotonia find comfortable to sit

Medical Research in the Past, Present, and Future

According to Thompson (2002), the diagnosis for Benign Congenital Hypotonia was not created and used in the medical setting until the early 1960s (p. 283)

Now due to research advances in the hospital setting, it is easier to detect whether the child has hypotonia, as well as why it might be a problem

Hopefully in the future technology would be able to conclude what is the cause of Benign Congenital Hypotonia as well as developing a cure

References

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