

Evaluation Skills: Torticollis pt. 2 - Show Notes

The evaluation process that this presentation is based on is the SOAP format

S – Subjective **O** – Objective **A** – Assessment **P** – Plan

S – Subjective

Birth History – Any complications with birth history? Pre or peri natal difficulties? Did ultrasounds show any restriction of space?

Family history – What's the family history?

Medical History – Does the baby have reflux? If so, there could be a correlation with Sandifer's Syndrome.

Typical Day - How much time spent in "containment devices" versus having time on the floor?

O – Objective - *Using the PIQ tool here (listen to first podcast for further explanation)*

P – Postures and Positions **I** – Initiation and Inhibitions **Q** – Quality and Quantity

Postures and Positions - Observe the child in different positions in sitting, supine, and prone.

Describe flat spots, plagio- vs scapho- vs brachycephaly

Palpate the neck – Is there a tight band?

Palpate along sutures to check for ridging – Are the sutures open?

Head righting reactions – Is there full, partial, or no response?

It's important to get a good look at the baby as a whole in order to see everything that is going on.

The Muscle Function Scale (MFS) for infants

Hold infant vertically around trunk without support of head, then lower to horizontal position. Have a grid of horizontal lines behind the child for consistent objective measurement. The child has to hold their head for 5 seconds to be scored. The scoring is on a scale of 0 – 4 as follows:

0= head below horizontal | 1= head in the horizontal | 2= head slightly over horizontal | 3= head high over horizontal | 4= head very high over horizontal

At 2 months the child should be scoring at horizontal (2.0). At 10 months the child should be high or very high (3.0 – 4.0).

Initiation and Inhibitions - What can the child do versus what can't they do?

Observe anti- and pro- gravity movements

Describe their movement patterns - Asymmetrical neck extension to the side of tightness

What can they NOT do? - Head righting reactions, protective reactions (delayed on opposite side of tilt), head control in various positions, difficulty reaching with upper extremities

This is a great framework for conversing with the parent for any evaluation – always discuss strengths before weaknesses.

It is key to ask the parents how much they know about torticollis. Did the doctor explain it? Do they know what it is?

Quality and Quantity – How are they doing the movements?

How are they rolling? – Lateral neck flexion at side lying phase to both sides

How are they reaching for toys in prone?

Sensation and Perception

Visual tracking (peripheral and central) – Are they able to track to both sides or do they get stuck?

Is there delayed visual convergence?

If these things present themselves then you need to look into ocular torticollis.

A – Assessment

Look at everything that you just observed and piece together what can and can't be achieved by the child in order to begin goal writing.

P – Plan

Universal goals for torticollis

1. The child should be able to maintain a neutral head position.

a. Encompasses rotation and lateral tilt component in supine, prone, and sitting.

2. The child should have full passive and active range of motion into restricted areas.
3. Correct movement patterns for age-appropriate movements (head righting during rolling)
 - a. Should be able to roll to both sides with adequate neck strength to lift their head off the mat to roll over
4. Prevent facial and skull deformities
 - a. This will go along with whether or not you need a helmet
 - b. A conservative route should always be used before using more invasive programs such as a helmet.

Treatment algorithm for Muscular Torticollis – With any child with torticollis you want to try physical therapy for 6 – 8 weeks and then re-evaluate them. If there is improvement then continued treatment for 6 – 8 weeks should take place. If there is not improvement, then you need to see if it is an ocular or neurological issue, as well as consult with the pediatrician about family history.

If there is a consistent head tilt with a band than surgery may be considered at 2 – 3 years. If a head tilt is present, but everything else is clear then look towards an x-ray because it could be a bony issue.

Most cases resolve within an average of 6 months, and 90-99% resolve with conservative treatment.

Treatment

Strategies are tailored towards the goals that have been written for the child.

Massage – relax the tight muscles

Stretching of tight muscles (neck and trunk) – stretching the tight SCM and upper trapezius

Contraindications: Down Syndrome/ ligament laxity; Spina Bifida; Bony abnormalities; Compromised circulatory or respiratory system

Strengthening of weak muscles – Strengthening the opposite side through head righting reactions.

Active positioning – Getting the child on their back, helping them reach for toys, helping them roll, helping them transition

Musculature has to be retrained to teach the child to do these things in midline.

Kinesiotaping

1. Tape to facilitate the SCM and upper trapezius on the weak side with no stretch to the tape (with fibers)
2. Muscle-relaxing on affected side across SCM with mild stretch (against fibers)

Check out The Working Therapist Podcast on taping titled “Do’s and Don’ts of Taping”

One study found muscle-relaxing technique was the most effective in combination with a stretching and strengthening program.

Helmet

Based on literature, the most effective period for cranial remodeling is 4-12 months.

Cranial remodeling in very young infants, birth to 5 months, can be influenced by re-positioning and handling.

The FDA prohibits the dispensing of helmets for cranial remodeling after 18 months of age because the skull is done growing and is not as effective.

Referral process – Therapist performs appropriate measurements to verify if a helmet is needed. Therapist writes a letter of recommendation to the PCP with the numbers and progress throughout therapy, and then PCP submits for the helmet referral.

Home Exercise Program

This is critical for children with torticollis as the child receives 90 minutes/week of PT versus 166 hours at home.

Parents / guardians get a copy of all the stretches that they do as well as a handout and are instructed to perform stretches at every diaper change. At the end of every diaper change they should roll the child onto their belly and give them at least one minute of tummy time.

One key way to help parents accomplish the HEP is to use their phone to take pictures and/or video of the assigned exercises. This also helps with a child who may be in daycare so it can be distributed to everyone who works with that child.

The information presented is based on a continuing education class that Samantha attended titled “Getting the PIQ-ture: Assessing and Treating Common Pediatric Patients” presented by Michelle Linehan.