

# Unresolved Congenital Torticollis and Its Consequences: A Report of 2 Cases

Mette Hobaek Siegenthaler, DC, MSc

## ABSTRACT

**Objective:** The purpose of this report was to describe the clinical presentation and case management of 2 children with congenital torticollis.

**Clinical Features:** Two male children (ages 6 and 10 years) presented to a chiropractic clinic with a history of congenital torticollis. They showed signs and symptoms of postural deficiency and developmental delay: posterior plagiocephaly, facial scoliosis, head tilt, compensatory thoracic scoliosis, decreased range of motion in the cervical spine, palpable decreased segmental motion of the upper cervical spine, and an age-related delay in throwing and catching a ball and in one-leg standing.

**Intervention and Outcome:** Both children received chiropractic care (spinal manipulative therapy) and physical therapy (therapeutic exercises, including neck, back, and coordination exercises). Each patient responded favorably with improvement in both structural (posture) and functional (range of motion of the spine and coordination) deficits.

**Conclusions:** Both patients responded favorably to the combined therapy. These findings suggest that children with congenital torticollis may benefit from a treatment plan that includes a broad therapeutic approach based on the principles of biomechanics and sensorimotor development. (*J Chiropr Med* 2017;xx:1-5)

**Key Indexing Terms:** *Congenital Torticollis; Chiropractic; Spinal Manipulation*

## INTRODUCTION

The incidence of congenital torticollis ranges from 0.3% to 16% and is a condition warranting evaluation and treatment at an early stage.<sup>1,2</sup> Congenital torticollis typically stems from a musculoskeletal problem or an underlying nonmusculoskeletal pathology and is characterized by a head and neck tilt, often combined with a rotational preference of the neck.<sup>3,4</sup>

Classic congenital orthopedic torticollis, mainly referred to as congenital muscular torticollis, is a nonparoxysmal torticollis with involvement of the sternocleidomastoid (SCM) muscle with a pseudotumor in the SCM.<sup>3-5</sup> The literature has reported on nonparoxysmal, musculoskeletal torticollis such as postural torticollis. In this type of torticollis, an imbalance in the neck musculature may be present.<sup>6,7</sup> Furthermore, nonparoxysmal torticollis may be caused by dysfunction in the upper cervical spine, and is

sometimes referred to as kinematic imbalance caused by suboccipital strain (KISS).<sup>8</sup> Both postural torticollis and KISS may be observed in infants and have an unknown etiology. Postural torticollis usually has decreased active range of motion (ROM) but normal passive ROM, whereas torticollis with SCM involvement and KISS show decreased active and passive ROM.<sup>2,4,8</sup> All 3 types of torticollis can lead to secondary changes in shape, such as deformational plagiocephaly (DP), facial scoliosis, and infantile scoliosis, and functional problems, including unilateral breastfeeding problems and asymmetrical use of the hands.<sup>3,4,8</sup> In addition to this, in the last decade, the question of whether congenital torticollis can lead to a delay in gross motor and coordinative development in infants, preschool children, and schoolchildren has gained increasing interest among clinicians and researchers.<sup>2,5,8</sup>

The consequences of congenital torticollis that is still present in school-aged children have been only vaguely described in the literature. Therefore, the purpose of this article is to describe the clinical presentation and case management of 2 children with congenital torticollis.

Chiropractor, Holbeinpraxis, Basel, Switzerland.

Swiss Academy for Chiropractic, Berne, Switzerland.

Corresponding author: Mette Hobaek Siegenthaler, DC, MSc, Holbeinstrasse 65, 4051 Basel, Switzerland. Tel.: +41 61 278 91 11. (e-mail: [Mette.dc@icloud.com](mailto:Mette.dc@icloud.com)).

Paper submitted September 7, 2016; in revised form April 20, 2017; accepted May 11, 2017.  
1556-3707

© 2017 National University of Health Sciences.

<http://dx.doi.org/10.1016/j.jcm.2017.05.004>

## CASE REPORT

The 2 patients were seen at a private chiropractic clinic in Switzerland. The parents gave informed consent to publish this report.

**Case 1**

**History.** A 6-year-old boy presented at a chiropractic clinic complaining of neck pain and stiffness. The mother reported that his head was not “straight” (tilted to the right), and the boy’s neck and shoulders appeared tight and inflexible. He was right-handed when performing gross motor movements (eg, throwing and catching a ball). He was a little clumsy, but his fine motor skills were good.

The boy was born through natural delivery at week 40 (weight 3.7 kg and height 52 cm). When the boy was approximately 1 month old, his pediatrician noted torticollis (right rotation, right lateral flexion). His mother did not know what type of torticollis it was. Craniofacial abnormalities were not detected. The torticollis was never treated nor was the case followed up because the family moved to another country for the following 2 years. The mother did not remember if the boy was mostly in the prone position during infancy. He was a “quiet” baby and slept well; he crawled at 11 months, his standing history was unclear, and he started walking at 15 months. At his school entry at 6 years, delayed gross motor skills were detected.

**Physical Examination.** The chiropractic examination showed right-sided posterior parieto-occipital plagiocephaly, right lateral flexed neck position, left high shoulder, right high pelvic bone with unequal leg lengths (+1 cm on the right), and a left convex curvature in the thoracic spine. He had decreased active and passive ROM in the cervical spine in left rotation (left 70°; neutral 0°; right 90°) and left lateral flexion (left 10°; neutral 0°; right 40°). Difficulty throwing and catching a ball was detected (of 10 attempts, only 4 were successful), as well as difficulty in one-leg standing on the left leg (3 seconds possible on the left side, 8 seconds on the right). The Beighton score (a measure of generalized hypermobility) was 5 of 9. With segmental palpation, decreased joint play and palpable decreased segmental motion were observed at the right C1/C2 and at the right iliosacral joint. A radiograph of the cervical spine showed right lateral flexion of the cervical spine and lateral deviation of C1 on C2 to the right (medial joint space between C1 and C2 was decreased on the left).

The boy was sent for neurologic and ophthalmologic examinations to rule out other underlying causes. No neurologic cause for his asymmetry and delayed gross motor skills was found; his eyesight was normal. Moreover, ultrasonography ruled out fibrosis of the SCM.

**Diagnosis.** The patient was diagnosed with untreated congenital torticollis since infancy caused by decreased segmental motion at the right C1/C2, with secondary plagiocephaly and physiological changes in the thoracic curvature, as well as decreased segmental motion on the right iliosacral joint, with associated leg length difference of 1 cm on the left side. Also noted was delay in gross motor skills, possibly caused by untreated infantile torticollis and tendency to joint hypermobility.

**Treatment and Results.** Chiropractic treatment consisted of SMT at the right C1/C2 and at the right iliosacral joint. Seven treatments were given over a period of 3 weeks. Within 3 weeks, full ROM in the cervical spine as well as normal joint play at the right C1/C2 and at the right iliosacral joint were achieved. The posture improved, but a slight right lateral flexed head and neck remained. No differences were observed in leg length, and the curve in the thoracic spine was resolved. Furthermore, one-leg standing was equal on both sides (right and left for 8 seconds). After the chiropractic treatment, a physical therapist provided a series of physical therapy exercises for improving coordinative motor skills. Long-term follow-up was done every 6 months until the boy was 9 years old. No regression of the symptoms occurred during that time.

**Case 2**

**History.** A 10-year-old boy presented to a chiropractic clinic complaining of neck and upper thoracic pain. The main reason for the consultation was motor delay, tiredness, and poor posture. The mother reported that the boy had a problem with most gross motor skills, such as running, throwing and catching a ball, and jumping. No problems with fine motor skills were reported.

The boy was born at 39 weeks (weight 3.5 kg and height 50 cm) via forceps delivery. At approximately 3 months of age, the pediatrician diagnosed torticollis. The type of torticollis was not explained to the parents, but ultrasonography ruled out hemangioma or fibrosis of the SCM. The mother remembered that the boy always turned his head to the left, and that his head was flat on the left. Physical therapy was initiated, but the mother did not keep the follow-up treatment appointments (a maximum of 8 sessions was undertaken). When asked, the mother reported that the boy spent little time in the prone position. Since infancy, he had had problems falling asleep. He started crawling at 12 months and walking at 18 months. The mother could not recall the age at start of standing and sitting. Delay in gross motor skills was detected when the boy was 5 years old. He was left-handed. He often got tired when performing physical activity. Furthermore, the mother reported problems with concentration, and attention deficit disorder was diagnosed when the boy was 7 years old. A trial of methylphenidate (Ritalin) therapy did not lead to any improvement.

**Physical Examination.** Chiropractic examination revealed right lateral flexion of the neck and head and rotation of the neck and head to the left. Furthermore, a pronounced left convex facial scoliosis, plagiocephaly with a flattened parietal bone on the left, and a slightly increased thoracic kyphosis were observed. The boy had decreased cervical ROM in active rotation to the right (left 90°; neutral 0°; right 60°) and decreased passive ROM in the cervical spine in right rotation (left 90°; neutral 0°; right 70°) and in left later flexion (left 10°; neutral 0°; right 40°). One-leg standing on the left was possible for 7 seconds and on the

Download English Version:

<https://daneshyari.com/en/article/8559592>

Download Persian Version:

<https://daneshyari.com/article/8559592>

[Daneshyari.com](https://daneshyari.com)