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## MRT as a Major Component of Physical Therapy Intervention for a Child with Congenital Muscular Torticollis: A Case Report

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### ABSTRACT

Congenital muscular torticollis (CMT) is a rare congenital musculoskeletal disorder characterised by unilateral shortening of the sternocleidomastoid muscle. It presents in newborn infants or young children with a reported incidence ranging from 0.3% to 2%. The Matrix concept was developed by Dr. Ulrich Randoll at the University of Erlangen Germany. According to this concept, life is a rhythmic movement. Diseases are disturbances until total stop. Basic therapy must be re-adaptation of rhythms on levels of cell biological regulation. This article reports a case of a 4months old female child successfully managed by Matrix Rhythm Therapy as a major part of physiotherapy for left side congenital muscular torticollis. The purpose of the case report is to find the efficacy of Matrix Rhythm Therapy on the neck movement and head alignment of a child with left side congenital muscular torticollis. Intervention included MRT, AROM, assisted movements in the neck region. Changes in the amounts of lateral head tilt were documented using still photography. The result of the study showed that child assumed a midline head posture in sitting position by the fifth session of therapeutic intervention (nine days).

**Keywords:** Congenital muscular torticollis (CMT), Matrix Rhythm Therapy, Sternocleidomastoid muscle, physical therapy.

### 1. INTRODUCTION :

**Congenital Muscular Torticollis (CMT)** is a rare congenital musculoskeletal disorder characterised by unilateral shortening of the sternocleidomastoid muscle. It presents in newborn infants or young children with reported incidence ranging from 0.3% to 2%. Due to effective shortening of the muscle on the involved side, there is ipsilateral head tilt and contralateral rotation of the face and chin. This article reports a case of 4months old female child successfully managed by Matrix Rhythm Therapy as a major part of physiotherapy for left side congenital muscular torticollis.

**MATRIX RHYTHM THERAPY:** The Matrix concept was developed by Dr. Ulrich Randoll at the University of Erlangen, Germany. The therapeutic approach is based upon the modern research in medicine, biology

and physics. In this new model, illnesses are understood as “derailed” process at the cellular level. The result is an approach to therapy which aims at restoring healthy physiological conditions first and foremost by improving the ‘logistics’ of the living process at the cellular level. This improvement of cell logistics, achieved with the help of Matrix Rhythm Therapy, in turn provides the basis for self-organisation and self-healing without any side effects. Vibrational energy, supplied from the outside and tuned to the frequency range of natural cell rhythms (micro vibrations) activates and restores the healthy spatial-temporal ordering of the living system via the mechanism of “entrainment” of oscillations.

### 2. CASE REPORT :

A 4months old female child was referred by a paediatrician for evaluation upon neck

movements. The mother of the child complained of child's improper posture with head tilted to one side. X-ray findings of cervical region showed no bony abnormalities. Birth history was uneventful. Child was born out of non-consanguineous marriage without any similar family history. There was no developmental delay. Higher mental function evaluation revealed child's excellent alertness, memory and cognition. Intervention included Matrix Rhythm Therapy, Active Range of Motion, assisted movements in the neck region. Therapy sessions were done on alternate days for fourteen days. The site of therapy application included cervical region, lateral neck including the area of sternocleidomastoid muscle and anterior neck region. Changes in the amounts of lateral head tilt were documented using still photography.

### 3. DISCUSSION :

Congenital muscular torticollis is also known as wry neck, fibromatosis colli or twisted neck. It is a common musculoskeletal condition that occurs in infancy. Congenital muscular torticollis is clearly distinguished from non-muscular congenital causes of torticollis, acquired torticollis, neurological torticollis, ocular torticollis and vestibular torticollis in literature. The characteristics of congenital muscular torticollis and responsiveness to treatment depend upon the age of the infant. The incidence of congenital muscular torticollis in infants at a few days of age to three months and 12 months old, has been reported at 16%, 1.9%, and 1.3%, respectively. The prevalence of congenital muscular torticollis in older children has been recorded variously at 0.07% in children aged two to three years old in one series, and 0.3% of children approaching six years old in another. Congenital muscular torticollis is characterised by the limited range of motion in both rotation and lateral flexion of the neck, and a unilaterally impaired lateral head-righting reflex. The etiology of congenital muscular torticollis is idiopathic. Literature suggests that it may occur due to traumatic birth, intrauterine malposition, infection and ischaemia. The severity of pathology may be diagnosed by examining absolute measures of the parameters on both sides or comparing the difference in

measurements between the left and right sides. Previous reports suggest that if congenital muscular torticollis is left untreated for even a few years, contractures may result and long-term facial asymmetry may persist or increase in severity. Various forms of non-surgical and non-pharmacological interventions and modes of delivery, including manual therapies, infant positioning and handling, exercises and active movement, soft neck braces, acupuncture, taping and electric stimulation therapy exists. Combination of these therapies is used by therapists to treat congenital muscular torticollis.

### 4. CONCLUSION :

The child assumed a midline head posture in sitting position by the fifth session of therapeutic intervention (nine days). The case report is the first attempt to describe a successful efficacy of Matrix Rhythm Therapy as a component of physical therapy for a child with Congenital Muscular Torticollis.

### 5. PICTURES :

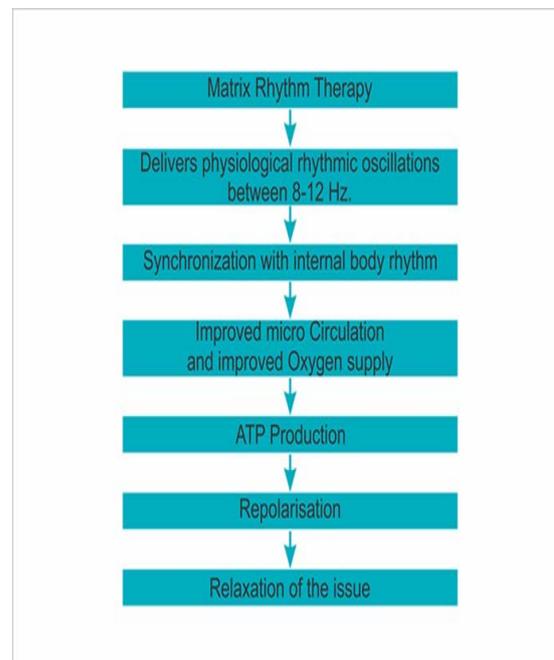


Fig. 1: Mechanism of Matrix Rhythm Therapy



Fig. 2: Instrument :Matrixmobil



Fig.4 : After treatment



Fig.3 : Before treatment

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