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Pattern of Congenital Muscular Torticollis in Chilaw Provincial Area of Sri Lanka

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Abstract

Introduction: *Congenital muscular torticollis (CMT) is characterized by shortening of the Sternocleidomastoid muscle among infants or children. Physical characteristics of this muscular condition are tilting of the ipsilateral head, rotation of the face and the chin towards the opposite side. The purpose of this study is to find out the prevalence of CMT in Chilaw Provincial area of Sri Lanka.*

Method: *Data was obtained by the past medical records of paediatric patients who attended the Physiotherapy department of Chilaw General Hospital since 2015 to 2018.*

Results: *Females are more prone for developing congenital muscular torticollis and it counts for 55%. Mostly affected site is Left side. The relationship between the age at the first visit and the recovery time is not significant and the reason may be the severity of the condition as it varies.*

Conclusion: *There should be evaluation criteria to measure the severity of the condition within the health field to predict the duration of the treatment period and the frequency of the treatment.*

Keywords: Congenital muscular torticollis, paediatric, treatment period, frequency

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1. Introduction

Congenital muscular torticollis (CMT) is characterized by shortening of the Sternocleidomastoid muscle among infants or children. Physical characteristics of this muscular condition are tilting of the ipsilateral head, rotation of the face and the chin towards the opposite side. Intrauterine crowding, vascular phenomenon, fibrosis from peripartum bleeds, compartment syndrome, primary myopathy of the Sternocleidomastoid muscle (SCM) and traumatic delivery can be the causes for CMT. (Nilesh K et al, 2013)

Treatments for CMT should be done at least 12 months or until the symptoms resolve. If the condition does not recover conservatively surgical treatments should be implemented. (Wei JL, et al, 2011)

Stretching treatments may improve head tilt, cervical passive range of motion, and Sternocleidomastoid muscle growth of infants. Stretching treatments of 100 times per day is likely to associate with greater improvements. (Lu He et at, 2017)

It has been found out that the education for prevention of CMT, referral, screening, examination, evaluation and prognosis are the important Sequa lea of managing such conditions. They point out that infants with CMT should be referred to physical therapists as soon as they have been identified. (Kaplan SL, 2018)

It has been found out that early intervention for a child with less than one month of age is effective with the success rate of 98% by 2.5 month of age and near normal range of motion can be achieved. When the infant is referred at the age of 6 months, it requires 9 to 10 months of therapy and the success rate is less. (Nichte et al,)

They have proved that controlled manual stretching is safe and effective in treatment of infants before the age of one year. The variables that predict the outcome of manual stretching are the clinical group, initial neck rotation lag, age at the first visit. The patients are referred for surgeries when the patient has undergone treatments for at least 6 months and has deficit in neck rotation. (Cheng et al, 2001)

CMT is prevalent in 0.4% of births and the severity of the SCM tumor can be varied. Intrauterine malposition can be the causative factor. (Brain HC, et al, 1994)

The major issue that affects the prognosis of CMT is the lack of home management. Lack of parents' education can slow down the speedy recovery. (Dissanayake et al, 2017)

2. Materials and Methods

This study has been conducted as a descriptive study to determine the prevalence CMT in Chilaw provincial zone.

Data was obtained by the past medical records of paediatric patients who attended the Physiotherapy department of Chilaw General Hospital since 2015.

Variables: Gender, The side affected, Age at the first visit, Recovery time.

Study area and population: 67 pediatric patients have undergone physiotherapy treatments for CMT since 2015.

3. Theory/calculation

The primary Objective of this study is to identify the pattern of Congenital Muscular Torticollis among chilaw provincial area. Furthermore this study calculates the most affected side of the study population and finds out the gender distribution among infants having congenital muscular torticollis. This study investigate the relationship between the average time taken for the recovery and the age at the first visit.

4. Results and Discussion

Females are more prone for developing congenital muscular torticollis and it counts for 55%. Mostly affected site is Left side. The relationship between the age at the first visit and the recovery time is not significant and the reason may be the severity of the condition as it varies.

4.1 Preparation of Figures and Tables

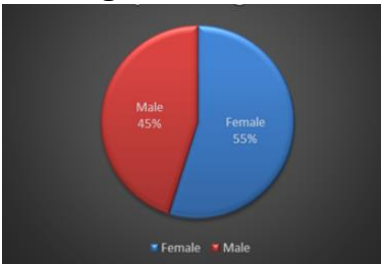

Figure 1: Gender distribution of CMT in Chilaw provincial area

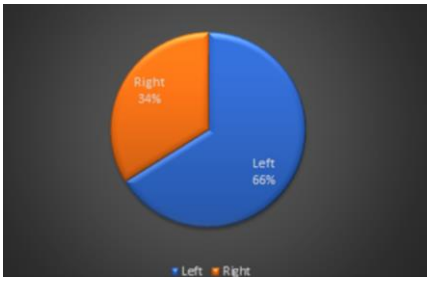

Figure 2: Mostly affected side of CMT

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.021437464
R Square	0.000459565
Adjusted R Square	-0.018762367
Standard Error	19.55707103
Observations	54

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	9.144446438	9.144446	0.023908	0.877716907
Residual	52	19888.90941	382.479		
Total	53	19898.05386			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	5.983791221	3.332375917	1.795653	0.078361	-0.703110265	12.67069271	-0.703110265	12.67069271
	-0.063080527	0.407962663	-0.15462	0.877717	-0.881717501	0.755556446	-0.881717501	0.755556446

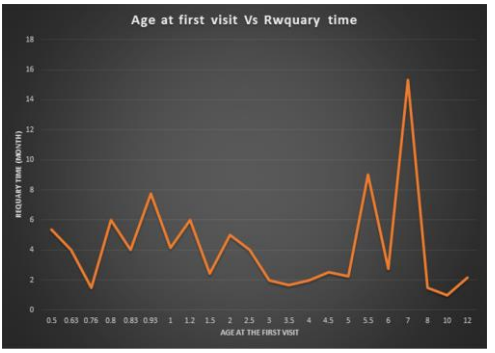

Figure 3: Relationship between the age at the first visit and the recovery time

5. Conclusions

Females are more prone for developing congenital muscular torticollis. Mostly affected site is Left side. The relationship between the age at the first visit and the recovery time is not significant and the reason may be the severity of the condition as it varies. There should be evaluation criteria to measure the severity of the condition within the

health field to predict the duration of the treatment period and the frequency of the treatment.

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