#### Report of Three Cases of Congenital Muscular Torticollis By: Dr.K.Anji Reddy, Dean & Plastic Surgeon

## Introduction:

Congenital Muscular Torticollis is a painless condition usually presenting during infancy. It is seen in 0.3 to 0.5 % of all births and generally involves unilateral Sternocleidomastoid muscle. The most likely causes include intra uterine malposition and birth trauma. I present three cases of congenital muscular Torticollis who reported at the age of 6, 16 and 18 years and has been successfully corrected by sternomastoid tenotomy.

## Summary of cases

All the patients are females aged 6, 16 and 18 years presented with deformity of the face and neck which had been noticed after their birth and it had progressively increased. Examination showed head tilted to the rt. side and face rotated to the opposite side in two patients and in third patient the head is tilted towards left side and face rotated to the rt. Side and chin facing the right shoulder. In all the three patients the Sternocleidomastoid muscle is thickened on the affected side and movements of the cervical spine particularly lateral rotation was markedly restricted. There was no facial assymetry. Other general and systemic examinations were unremarkable. Hips and lower limbs are normal. Radiographs of the cervical spine did not reveal any bony abnormalities. The patients were prepared for surgery under General Anesthesia. First two patients were operated through transverse incision which was 2.5 cm above the medial end of the clavicle. Both the heads of the Sternocleidomastoids were identified defined and divided under vision with electrocautery together with deep cervical fascia. The wounds were closed and cervical collar applied to all the three patients post operatively. After one week vigorous physiotherapy treatment was given for a period of three months after surgery. Two patients were followed for a period of two years and third patient is six weeks after surgery and all the three showed good response to the treatment and free of recurrence.

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#### **Discussion**

Sternocleidomastoid is a condition of debatable etiology and management. It is generally regarded as being due to birth injury, causing either rupture of the fibers of the sternocleidomastoids or of the vessels supplying it. Degeneration of affected fibers occurs and it is followed by fibrous tissue replacement resulting in contracture or failure of the growth of the muscle. If the condition is untreated the other muscles on the affected side and the deep fascia become shortened as well. A high incidence of associated hip dysplasia and ipsilateral mandibular hypoplasia have also been reported.

The diagnosis is clinical, even though the role of ultra sonography imaging in diagnosis and monitoring of all the patients of Congenital Muscular Torticollis has been reported. A thorough evaluation of the child must be under taken to exclude other causes of Torticollis such as congenital or acquired conditions of the cervical spine, ocular conditions like squints and visual defects, infections of the ear and throat and lesions of cervical spine.

Regarding treatment, if the child is seen immediately after birth the management treatment modality is physiotherapy and controlled manual stretching exercise and most of the patients do well with conservative treatment before the age of one year. Only four to five percentage of the patients do require surgical treatment and it is advisable to advise surgery before the age of six years. The surgical procedure requires the release of both heads of Sternocleidomastoid. In very severe cases bipolar dissection of sternocleidomastoids may be necessary. In recent times use of botox injections to release the tight muscles is a new form of treatment being tried by some physicians.

## **Conclusion:**

The three patients had established Congenital Muscular Torticollis and were treated successfully with tenotomy of both the heads of the sternocleidomastoids followed by splinting and physiotherapy for a period of three months. Following the surgical procedure the quality of life of these patients improved and the risk of any musculo skeletal abnormalities and growth disorder in the neck and face on the affected side is prevented.

# Suggested reference articles:

- 01. Bredenkamp JK, Hoover LA, Berke GS, Shaw A. Congenital muscular Torticollis. A spectrum of disease. Arch Otolaryngol Head Neck Surg. Feb 1990;116(2):212-6.
- 02. Cheng JC, Tang SP, Chen TM, Wong MW, Wong EM. The clinical presentation and outcome of treatment of congential muscular Torticollis in infants a study of 1,086 cases. J Pediatr Surg. Jul 2003;35(7):1091-6.
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- 04. Tatli B, Aydinli N, Caliskan M, et al. Congenital muscular Torticollis: evaluation and classification. Pediatr Neurol. Jan 2006;34(1):41-4.







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