

Neglected Congenital Muscular Torticollis With Concurrent Atlantoaxial Rotatory Subluxation

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INTRODUCTION:

Congenital muscular torticollis is believed to be caused by traumatic neck soft tissue at birth. Atlantoaxial rotatory subluxation on the other hand is classified as acquired cause of torticollis. The direct relationship between these two entities remains unclear.

CASE REPORT:

A 7 year old girl, presented with chronic right torticollis associated with facial asymmetry. Parents claimed the deformity worsened by time which alarmed them to seek medical treatment. Upon our review, there was facial hemihypoplasia. Head tilted to the right with chin rotated to contralateral side. Right sternocleidomastoid (SCM) muscle contracted with SCM tumor of 1.5cm in size. The movement of neck was very restricted. CT scan of neck revealed that patient had atlantoaxial rotatory subluxation.

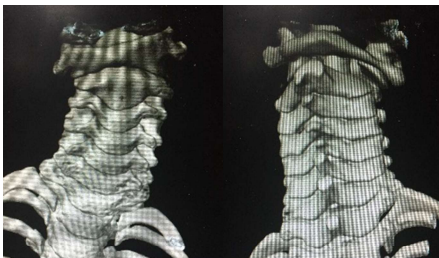


Figure 1: 3D CT scan shows atlantoaxial rotatory subluxation

Patient underwent bipolar release of right SCM. Proximal incision was made just distal to the tip of mastoid process vertically while distal incision was made 1 fingerbreadth proximal to medial end of clavicle horizontally. All the sternal head, clavicular head and mastoid insertion of SCM muscle were released using bipolar diathermy. 2cm of SCM lengthening was achieved after the release.

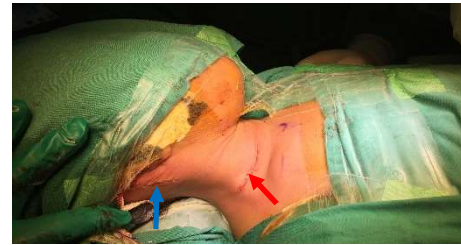


Figure 2: Incisions for bipolar release of right SCM (blue arrow-proximal, red arrow-distal)

Post-operatively, patient was put on Halter traction for 2 weeks, then discharged home with soft collar. Upon review at clinic at 1 month post-operatively, the torticollis subsided and range of movement significantly improved. Patient was advised for active neck range of movement exercise.



Figure 3: Pre-operative (left) and 1 month post-operative (right) comparison

DISCUSSIONS:

Congenital muscular torticollis is the third most common congenital deformity after hip dysplasia and clubfoot. It has to be differentiated from torticollis caused by cervical osseous deformity, rheumatoid arthritis or other inflammation around neck. Late sequelae such as facial asymmetry, scoliosis and vision disturbance may occur if left untreated. Bipolar release is a flexible technique and reported to have low rate of recurrence.

CONCLUSION:

Bipolar release followed by short period of Halter traction is an option for neglected congenital muscular torticollis with concurrent atlantoaxial subluxation.