

Abstract #1787.docx

Surgical Management of Dropped Head Syndrome: Report of Nine Cases

Dropped head syndrome (DHS) is relatively rare condition caused by posterior neck muscle insufficiency and/or dysfunction of posterior cervical stabilizers. DHS significantly affects patients quality of life, and sometimes results in chin-on-chest deformity. We report results of surgical correction for 9 patients with of DHS.

Nine patients with DHS who underwent surgical correction were reviewed. There were 6 men and 3 women, and their mean age was 65.1 years (range 32-78). Causes of DHS were idiopathic in 4 patients, postlaminectomy or postlaminoplasty in 2 and posttraumatic, ankylosing spondylitis and rheumatoid arthritis in each 1. All patients were suffered from horizontal gaze disturbance, and 7 patients had dysphagia preoperatively. 3 patients had cervical myelopathy preoperatively. Deformity had progressed to chin-on-chest deformity in 3 of 9 patients. 7 patients underwent single posterior osteotomy: multi level Smith-Peterson osteotomy in 6 and pedicle subtraction osteotomy at C7 in 1. Remaining 2 patients underwent combined anterior and posterior osteotomy. Cervical pedicle screw fixation utilized in all patients. Cervicothoracic fixation for 8 patients and occipitothoracic fixation for one patient were performed.

Sagittal vertical axis (SVA) on standing lateral projection X-ray picture was preoperatively had shifted to anterior of the sternum in all patients. SVA was transferred by surgical correction to posterior of the sternum in all patients. 76 degree of preoperative cervical or cervicothoracic kyphosis in average (range: 46-105) was corrected to 17 degree (range: 5-43). Regarding complication by surgery, transient C5 nerve palsy in 2 patients and loss of correction requiring caudal extension of fusion levels in one were observed.

Surgical intervention for DHS caused by neuromuscular disorders had been considered difficult and sometimes non-effective. However, sufficient correction can be expected by combined use of multilevel cervical osteotomy and rigid instrumentation for selected patients. Surgeons must consider choice of posterior or combined anterior/posterior osteotomy, the spinal levels of osteotomy and length of fixation.