Abstract #1156.docx

C5 palsy following cervical anterior fusion, posterior fusion, and anterior-posterior fusion

Object. To determine the incidence and risk factors of C5 palsy after anterior, posterior, and anterior-posterior fusion.

Methods. Fifty-five patients (20 females and 38 males) who had undergone anterior (25patients), anterior (22 patients), anterior-posterior fusion (11 patients) in our hospital from 2006 to 2011 were reviewed. Their mean age was 61 years. Incidence of C5 palsy was assessed by surgical procedure. Clinical features and radiologic parameters were evaluated to identify prognostic factors.

Results. Thirteen (22.4%) of 58 patients developed postoperative C5 palsy. All C5 palsy occurred unilateral. The incidence was 4 cases (16%) in anterior fusion, 4 cases (18%) in posterior fusion, and 5 cases (46%) in anterior-posterior fusion. The local angles and C4-5 angles were no significant differences between patients who developed C5 palsy and those who did not developed C5 palsy. The diameters of the C4-5 foramen on the palsy side were significantly smaller than those on the no palsy side.

Conclusion. The incidence of C5 palsy in anterior-posterior fusion was very high compared to anterior fusion and posterior fusion. The risk factors of C5 palsy were small C4-5 foramen and anterior-posterior combined surgery.