

Rotatory Atlantoaxial Dislocation

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Aim:

The authors report their experience with patients in whom acute torticollis or a fixed flexion neck deformity developed.

Material and Methods:

The authors present their successful management of patients with rotatory atlantoaxial dislocation treated by them between the years 2004 to 2017. Other than neck deformity, there was no other significant functional or neurological symptom. Although several possible pathogenetic factors have been speculated, the exact cause remains unknown. Conservative observation and/or attempts at closed reduction failed to effect deformity resolution. Investigations revealed "locking" of facets that resulted in rotatory or translatory atlantoaxial dislocation depending on the nature of facet dislocation. The management issues in such cases are evaluated. The authors discuss the validity of atlantoaxial facet distraction and manipulation/reduction and fixation under direct visualization.

Results:

In all cases recovery from neck deformity was significant immediately after surgery. The deformity resolution was sustained during a mean follow-up period of 48 months, although the range of neck movements remained marginally restricted. The craniovertebral realignment is demonstrated by images and clinical photographs.

Conclusion:

Rotatory atlantoaxial dislocation and related neck torticollis can be a physically crippling disorder. The difficulties associated with exposure and manipulation of the atlantoaxial joint for reduction of the rotatory dislocation, particularly in neurologically intact patients, makes surgery for this problem a difficult therapeutic issue.