

### Occipito Cervical Fusion in Cranio Vertebral Junction Pathologies Guiden Demirci MD: Tevyub Hasanov: Yasar Bayri MD: Deniz Konya MD

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#### Introduction

Occipitocervical arthrodesis is indicated for a variety of pathologies that affect cranio vertebral junction including developmental anomalies, Rheumatologic diseases, Neoplasms, traumatic and degenerative conditions. The unique anatomy and biomechanics of the cranio vertebral junction are the two major challenging factors for the surgery. In our study here we present 17 patients who treated with occipitocervical arthrodesis in our clinic.

#### **Methods**

Seventeen patients were operated in Marmara University Neurosurgery Department and Marmara University Institute of Neurological Sciences during the period between January 2009 and February 2013. Of these 17 patient 10 were male and 7 were female. The range of age was 12 – 67 (Median : 53). Cranio vertebral MRI, 3D CT and plain radiographs were taken in the preoperative and postoperative period.

# Results

In the post operative MRIs decompression of the brainstem is radiologically proved. Mean VAS score for neck pain is 8 in the preoperative period and 2 in the post operative period. Normalization in hyperreflexia and decrease in paresthesia was seen in 6 weeks postoperatively. 2 patients had wound problems and had another surgery but did not show instrumentation failure. 1 patient needed revision surgery for pseudoarthrodesis.

#### Conclusions

Occipitocervical fusion is a challenging but effective treatment for the pathologies concerning cranio vertebral pathologies. Potential fatal pathologies if left untreated is corrected and quick neurological recovery is achieved.

## Learning Objectives

By the conclusion of this session participants should be able to know the pathologies that occipitocervical fusion is indicated.

### Pre-operative Sagittal MRI



Post-operative Sagittal MRI



#### Pre-operative X-ray



**Post-operative X-ray** 

