

4th Global Congress on

SPINE AND SPINAL DISORDERS

September 05-06, 2018 Auckland, New Zealand

Results of occipito-cervical fusion in post-traumatic upper cervical spinal instability and odontoid fracture

Md Shah Alam¹, Md Rezaul Karim¹, Anisur Rahman¹, Sharif Ahmed Jonayed¹, Abul Kalam Azad¹, Abdullah Al Mamun¹, Sarwar Jahan¹, O Z M Dastagir¹, Shubhendu Chakraborty¹ and Tashfique Alam² and Hasan Khalid Md Munir²

¹National Institute of Traumatology and Orthopedic Rehabilitation, Bangladesh

²Bangladesh Medical College Hospital, Bangladesh

Introduction & Aim: Surgery for upper cervical instability (e.g. Atlanto-occipital and Atlanto-axial) and odontoid fracture is always challenging. Our study demonstrates the results of occipito-cervical fusion when there is any of neurologic involvement, failure to conservative treatment and significant deformity due to post-traumatic injury at the mentioned levels.

Method: Nine patients (M-7 and F-2) with the mean age of 23 years (range: 18-37) underwent occipito-cervical fusion at NITOR and BSOH in between July 2015 and December 2017. Posterior approach was adopted in all keeping them in neutral position with tong traction during surgery. A midline incision extending from the superior nuchal line to below the level involved was made. Fixation was done by pedicle screw or lateral mass screw or occipito-cervical plate-rod system. Autogenous chunk bone graft taken from iliac crest was given to ensure adequate fusion. Halo immobilization was continued for 6 weeks after surgery to maintain correction and ensure fusion.

Result: All patients survived surgery. No neurological deterioration was there. They were kept at ICU during the post-operative period for a closed monitoring. C1-C2 trans-articular fusion was done along with Atlanto-occipital fusion for all. Solid fusion was achieved within 6 months. During follow up, satisfactory deformity correction and neurological improvement was noticed. Post-operative flexion decrease (average 28o) along with lack of rotation was seen in each patient. No implant failure and wound infection was noted.

Conclusion: Occipito-cervical fusion is a reliable option for upper cervical spinal instability and significant deformity. It provides satisfactory clinical results with important neurologic recovery.

Biography

Md Shah Alam is an eminent Spine and Orthopedic Surgeon in Bangladesh. He has been working as a Professor and Unit Chief at the National Institute of Traumatology and Orthopedic Rehabilitation (NITOR), Dhaka, Bangladesh. He is a FCPS in General Surgery and MS in Orthopedic Surgery. He was awarded FRCS from the Royal College of Surgeons of Edinburgh, UK. He has special interest on spinal infections and deformity correction. He is the Secretary General of Bangladesh Spine Society and Council Member of APSS.

dr.s.alam@hotmail.com