

Cranio-vertebral junction anomalies with Atlanto-axial instability: Management and complications- Our experience of 63 cases at a tertiary care center in India

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ABSTRACT

Introduction Management of complex cranio-vertebral junction anomalies with atlanto-axial instability require extensive pre-operative work up with various intra-operative (and/or preoperative) manoeuvres and bony fusion procedures and post-operative rehabilitation and support. This study focuses on various management strategies in terms of its outcome and complications.

Materials and methodology: This clinical analytical study shares our experience of 63 cases of cv junction anomalies with atlanto-axial instability operated at tertiary care center in india. 63 patients operated during the period spanning from June-2019 to November-2021 who had atlanto axial instability (AAD WITH/WITHOUT BI). Patients were assessed pre-operatively and post-operatively up to 3 months objectively and subjectively in terms of outcome and post op radiology was also done.

Results: Out of 63 atlanto-axial operated patients, 42 improved, 3 had stable disease and 12 deteriorated clinically some of whom required also secondary procedures for it. Out of 63, 8 patients had died, 4 of them were pediatric and 4 were adults. Various procedure related complications occurred in 12 patients. **Conclusion:** Thus, with proper pre-operative diagnosis of type of congenital anomaly combined with appropriate surgical plan can give impacting results in these pathologies with minimal complications.

Key words: cranio-vertebral junction anomalies, atlanto-axial instability, DCER, C1-C2 fusion