CERVICAL SPINE RESEARCH SOCIETY
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BG Klinik
Berufsgenossenschaftliche Unfallklinik Ludwigshafen

Treatment and outcome after atlanto-occipital dislocation in trauma patients

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Cervical Spine Research Society - Europe

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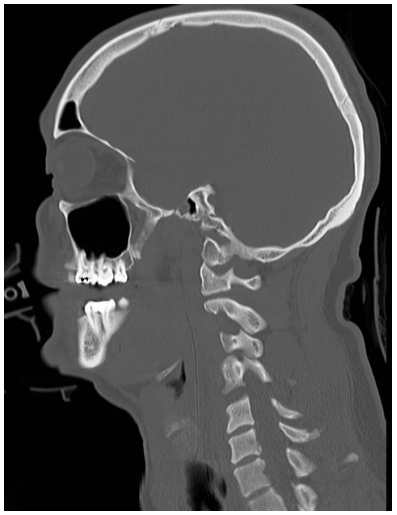
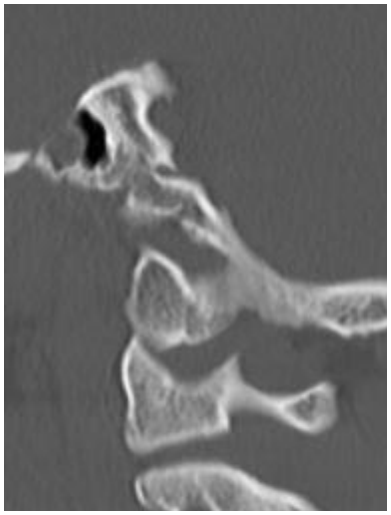
Introduction & Background

Traumatic Atlanto-occipital Dislocation

- Incidence is about 1% (Chaput et al 2011)
- Mortality is about 80% (Dickmann et al 2018)
- Increasing number of patients with AOD (Krotbeek et al 2018)

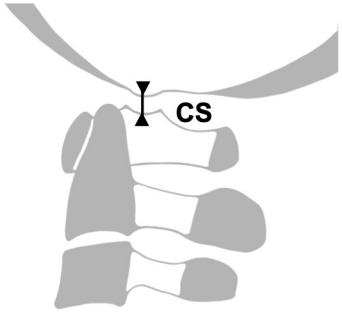




Materials and Methods

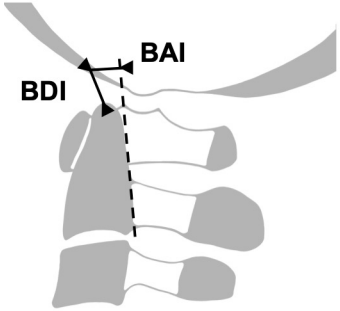
Inclusion criteria

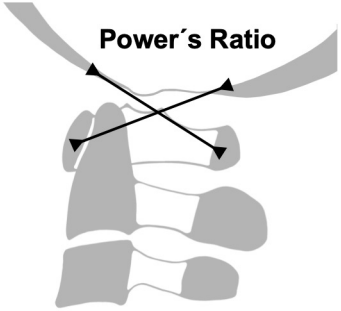
- Treatmant at BG Clinic Ludwigshafen
- 2012 - 2019
- Condylar Sum (CS) ≥ 4.2 mm

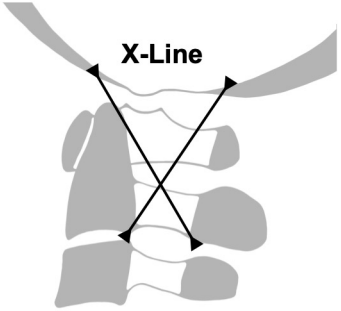


Monitoring Criteria:

- Preclinical and clinical data
- Outcome
- Basion-Dens interval
- Basion-Axis Interval
- Power`s Ratio
- Lee`s X-Line







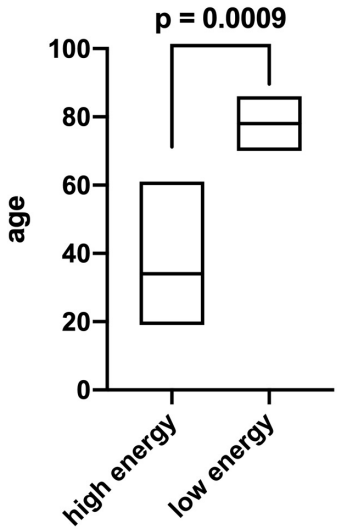
Results

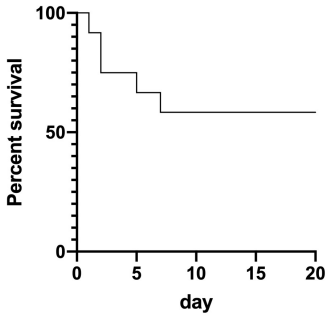
- 12 patients with traumatic AOD (4 ♀, 8 ♂)
- Accident cause depending on age
- Lethal outcome in ROSC and AOD type 1

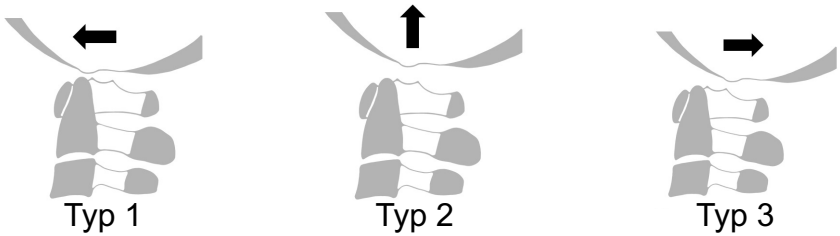
- BDI, X-Line → 33% AOD
- BAI, PR → 16,7% AOD

- Occipito-cervical stabilization (3 patients)
- Conservative treatment (5 patients)
- Lethal outcome (5 patients)

- Follow-up: 6.7 Month; GCS 15; 3 x neurological deficits

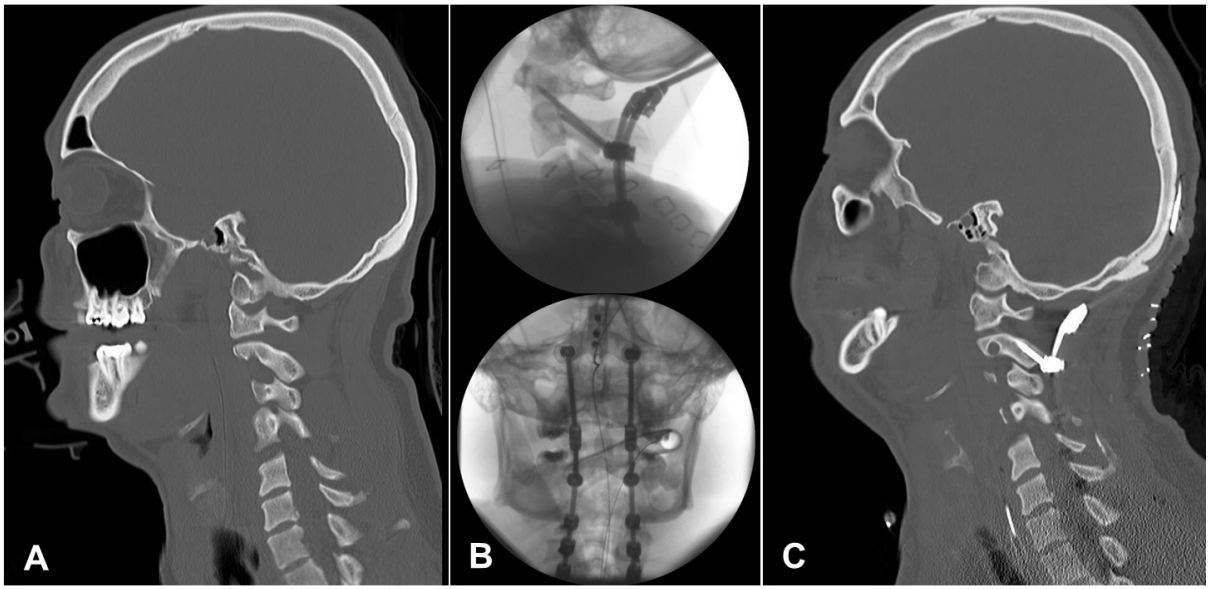






Conclusion

- Standardization and training in prehospital and emergency care.
- Exact measurement method is necessary for diagnosis of AOD
- Survival rate of up to 60% possible
- Individual treatment plan



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