

Cerebral Decompression Sickness at Duke:

Case Series Analysis of Presentation Patterns

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Is Cerebral Decompression Sickness Under-Diagnosed?

- Cerebral DCS incidence reporting varies
 - 8% to 44% of total DCS cases
 - Self-reporting, different criteria, not tested for routinely
- Subjective symptoms like headache and unusual/severe fatigue are correlated with cerebral DCS symptoms
 - Non-specific, also found in non-cerebral DCS
 - Should they trigger mental status testing?





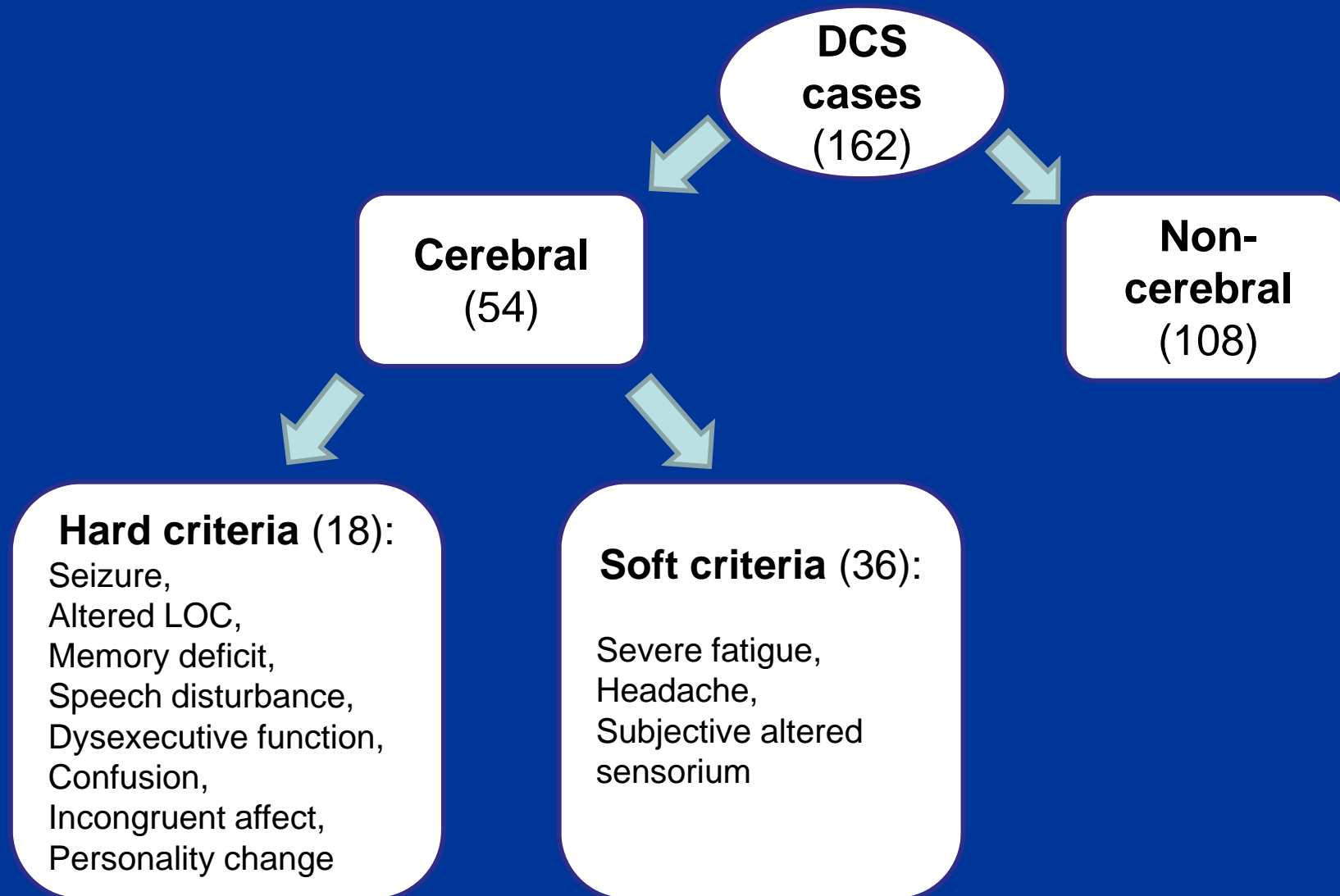
Methodology

- All cases of dive-related DCS treated at Duke Hyperbaric 1997-2010
- Logistic regression analysis
 - Cerebral vs non-cerebral DCS
 - Demographics (age, sex, BMI), dive depth/time profile, dive type (decompression, repetitive within one day, multiple over several days).
- # of cases with cerebral symptoms that had any form of standardized mental status exam





Methodology





Discussion

- **Duke cerebral DCS incidence vs other case series in literature**
 - Hard criteria 11%; including soft only 33%
- **Is there a risk profile for cerebral DCS?**
 - No statistical difference between cerebral (hard criteria or including soft only) and non-cerebral
 - Retrospective study, dive profiles, demographics not complete





Discussion

- **Are we doing enough to identify it?**
 - 54 cases with evidence of cerebral involvement or possible cerebral involvement
 - 14.8% received formal mental status testing
 - 33% of the hard criteria cases receiving testing





Thank You

