

INTRODUCTION

- Diffuse axonal injury is a severe form of traumatic brain injury which mostly occurs in high-speed motor vehicle accidents.
- Diffuse axonal injury is also known as traumatic axonal stretch injury

MATERIALS / METHODS

THE ADAMS DIFFUSE AXONAL INJURY CLASSIFICATION

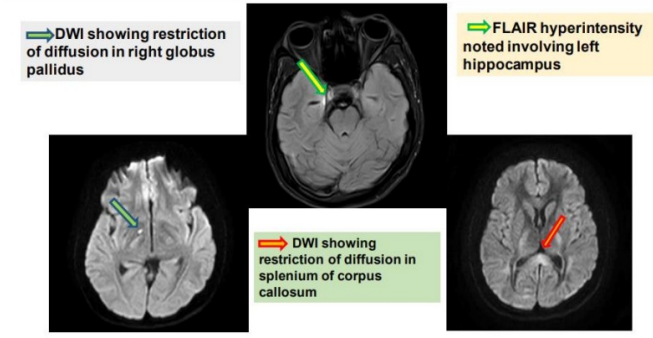


- GRADE 1:** Mild diffuse axonal injury with microscopic white matter changes in cerebral cortex, corpus callosum, and brain stem
- GRADE 2:** Moderate diffuse axonal injury with gross focal lesions in the corpus callosum
- GRADE 3:** Severe diffuse axonal injury with findings as grade 2 and additional focal lesions in the brain stem.

• A 23 year old male patient presented with history of fall from bike 2 hours back to the emergency department with loss of consciousness and GCS-5. • Patient was advised CT and MRI Scan Brain.

RESULTS & DISCUSSION

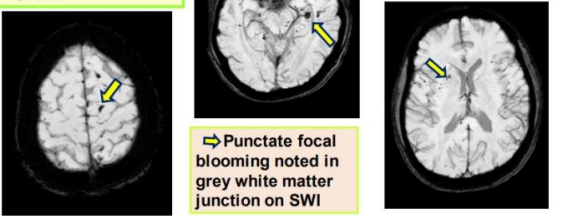
MR Imaging shows FLAIR hyper intensities with restriction of diffusion



SWI IS THE BEST TOOL TO DETECT HEMORRHAGIC DAI

➤ T2*GRE is very sensitive for microbleeds & show ovoid and linear hypointensities. Prognosis correlates with number and severity of lesions.

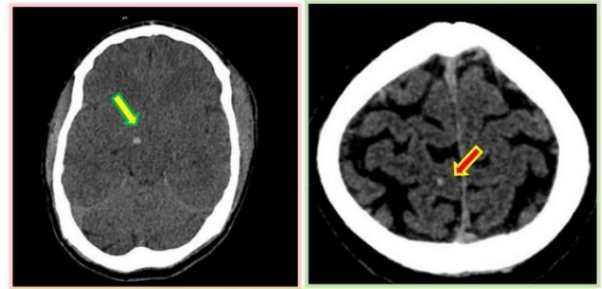
- MORPHOLOGY**
- ✓ Punctate
 - ✓ Round
 - ✓ Ovoid
- Often haemorrhagic
➤ Always bilateral & multiple



AIMS / OBJECTIVES

- Outline the Adams classification for axonal injury.
- Review the management of axonal injuries.
- Describe the presentation of axonal injury.

RADIOLOGICAL FINDINGS



CT scan shows punctate haemorrhage's involving the gray white matter junction
 → Temporal lobe → High parietal region

CONCLUSION

• Being one of the most severe brain injuries in head trauma patients, it is essential to promptly recognise and understand DAI presentation on CT and/or MR scans.