Aeromedical decision making (ADM) in Transient Global Amnesia
Disposition aeromedicalé en cas d’amnesie globale transitoire

Dr Ian Cheng
Dr Peter Clem
Dr Michael Drane
Dr David Fitzgerald
Assoc Prof Pooshan Navathe
Dr Doug Randell

DR APARNA HEGDE
MBBS FACAsM DAvMed(UK) FRACGP
MPH&TM
SENIOR MEDICAL OFFICER
Diagnostic Criteria for TGA

- Presence of anterograde amnesia that is witnessed
- No clouding of consciousness or loss of personal identity
- Cognitive impairment limited to amnesia
- No focal neurological or epileptic signs
- No recent history of head trauma or seizures
- Resolution of symptoms within 24hrs
- Mild vegetative symptoms (headache, nausea, dizziness) may be present during the acute phase
Epidemiology of TGA

- Incidence 3-8 per 100,000 per year
- 75% attacks occur in 50-70yo
- Annual recurrence 6-10%
- Precipitating events described in 50-80%:
  - Sudden immersion hot or cold water
  - Physical exertion, sexual activity
  - Emotional or psychological stress
  - Pain
  - Medical procedures
Differential Diagnoses

- Ischaemia in the posterior cerebral circulation
- Intoxication, adverse drug side-effects
- Complex focal seizures, transient epileptic amnesia, post-ictal conditions
- Psychogenic fugue, dissociative disorders
- Post-traumatic amnesia
- Hypoglycaemia
Management

- Document history, signs and symptoms
- Witness accounts
- EEG
- MRI 24-72hrs after onset
Prognosis

- 7% are diagnosed with epilepsy (Transient Epileptic Amnesia) within 12M of diagnosis
- 6.2% recurrence in 12M
- Annual recurrence rate 2.8% mean F/U 5yrs
MRI Images
Aeromedical Issues

- Meets clinical case criteria
- Recurrence rate
- Diagnosis of a serious condition in the future
- Worst case scenario of in-flight incident
Risk Mitigation

- Institution of safety nets
- a monitoring period
- “as or with co-pilot” restriction to allow for differential diagnoses
Case Presentation

- 61yo Angel Flight Pilot
- Confused after a morning walk
- Wife concerned he was having a CVA
- Hospital work up – clear CT, normal EEG
- Episode lasted several hours
Flow chart for ADM in TGA

Neurologist report with diagnosis of TGA

REFUSE - all Classes 12/12

Diagnosis of Exclusion
* Severe anterograde amnesia 4-6 hours
* Absence of dyspraxia or dysphasia
  * Witnessed event in its entirety
* No significant neurobiological features
  * Normal Imaging
  * Full resolution within 24 hours
* No history of epilepsy or head injury
No recurrence + TGA confirmed

Class 1&3 MC/Prox Restriction

Class 2 WSP

+ Annual Progress report
No recurrence for 5 years

Permanent Class 1&3 MC/Prox Restriction

Unrestricted Class 2 WSP
Conclusion

- TGA is uncommon in clinical practice
- The aeromedical issues involved are recurrence rate and diagnosis of another safety relevant neurological condition
- The ADM process remains the same regardless of the clinical scenario
References

- Hodges JR, Warlow CP. The aetiology of TGA: a case control study of 114 cases with prospective follow up, Brain 1990; 113: 639-57