

Successful Outcome in TBI

A compelling application for NeurOptics Pupillometry

Out of respect for the trust policies of the MTC involved, the following cameo is unattributable and anonymised. However the neuro ITU team are enthusiastic that the essential outcome of the case, that is now routine if infrequent, should be widely communicated as one of the defining benefits of the introduction of innovative assessment of pupillary response.

It is hoped that eventually this particular case and other similar events will be published in detail in a peer reviewed UK media.



Successful Outcome in Traumatic Brain Injury

An elderly gentleman fell in his garden sustaining a head injury that rendered him unresponsive.

Paramedics established that he was a warfarin patient, assessed that his right pupil was 'blown' and that his GCS was 5. He was air lifted to the nearest MTC where the neuro theatre was on standby.

A CT scan revealed a right subdural haematoma and significant mid line shift and the patient was transferred to neurosurgery for craniotomy and evacuation of the haematoma.

On arrival in theatre, by conventional assessment, both pupils were thought to be dilated and non-reactive, the surgery was cancelled and the patient was stepped down for palliative care on the neuro ITU, presuming brain stem death.

An assessment of pupillary response was made by the neuro intensivist using a NeurOptics NPi-100 and it was found to be significant and improving. This forced a review of the treatment pathway by the neurosurgeon and the patient returned to theatre for craniotomy and relief of pressure.

48 hours post surgery the patient had a good motor score; 6 weeks later the patient was in a nursing home. Walks with assistance, mild left sided weakness and slight cognitive impairment.

Not a perfect outcome, but without the pupillometer results this elderly patient would have most likely deteriorated and not survived.