Brain Injury Psychiatry Workshop

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Emotional Dyscontrol

Case 2

- 66 year old married father, living with second wife overseas, project planner in Australia for work, ex-navy, lost control of vehicle at speed. Severe TBI (PTA 19 days) with DAI and subsequent stroke → R. hemiparesis
- Slow tempo slurred speech, erratic sleep, inconsistent engagement, rigidity, lability
  - SW: support wife to extends visa, work with ex-wife to sell jointly owned property, CTP, solicitor liaison
  - Neuropsych: capacity, recommendations to manage inflexibility and anxiety- validate, reassurance, time-out
  - Speech: cognitive-communication impairment- overinclusive, verbose, abrupt. “Stop-think-speak”, carer ed
  - OT: adaptive feeding equipment, shower chair, toilet frame- declined use on leave. Wheelchair- declined
  - Physio: mobility, lower-limb strengthening, hydrotherapy
  - Dietician: overweight, education
  - Case management: Lifetime care

Case 2

- Referred whilst an inpatient at rehab for management of anxiety and difficulty sleeping
- Excessive generalised worry, irritable, sleep difficulty (believed d/t environmental factors)
- Commenced on mirtazapine, helped with sleep, weight monitored
- Continued to be very rigid, controlling and emotional. Easily crying at a range of triggers frustration of discomfort of mattress, joy at improvements in physical function, overwhelmed at shopping centre

Emotional dyscontrol

- Unpredictable and rapidly changing emotions that are excessively intense relative to stimulus and not amenable to full voluntary control
- Prototypical form- pathological laughing and crying (PLC)/pseudobulbar affect/emotional incontinence
  - Severe disturbance in moment-to-moment emotional expression/regulation (weather), rather than the sustained, excessive and pervasive disturbances of emotion characteristic of mood disorders (climate)
  - Brief, stereotyped, intense, uncontrollable episodes of laughing/crying triggered by sentimentally trivial or neutral stimuli
- Affective lability and irritability
  - Brief episodes of congruent emotional expression not discretely paroxysmal, of variable intensity, and partially amenable to voluntary control or interruption by external events
  - Characteristically involves crying or laughing, may entail anxiety/irritability as well

Lauterbach EC, Cummings JL, Kuppuswamy PS: Toward a more precise, clinically -informed pathophysiology of pathological laughing and crying. Neurosci Biobehav Rev 37(8):1893–1916, 2013

Arciniegas DB, Wortzel HS: Emotional and behavioral dyscontrol after traumatic brain injury. Psychiatr Clin North Am 37(1):31–53, 2014

Emotional dyscontrol- frequency and correlates

- PLC: pathological crying is more than four times more common than pathological laughing, with the overall frequency of both types combined being approximately 16%, declines over the first year postinjury
- Estimates of prevalence of lability range from 33%–46% in the early postinjury period to 14%–62% in the late postinjury period

Roy D, McCann U, Han D, et al: Pathological laughter and crying and psychiatric comorbidity after traumatic brain injury. J Neuropsychiatry Clin Neurosci 27(4):299–303, 2015

Differentiating emotional dyscontrol

- PLC- ictal laughing (gelastic seizure) and ictal crying (dacrystic seizure)
- Lability- affective disorders, substance use disorders, idiopathic personality disorders

Emotional dyscontrol- management

- Counselling and education focussed on improving self-efficacy and self-regulation appear to effectively reduce affective lability and co-occurring behavioural dyscontrol
- Structured rehabilitation interventions focused on concurrently improving emotional regulation and cognitive performance

Cattelani R, Zettin M, Zoccolotti P: Rehabilitation treatments for adults with behavioral and psychosocial disorders following acquired brain injury: a systematic review. Neuropsychol Rev 20(1):52–85, 2010

Emotional dyscontrol- management

- Serotonergically and/or noradrenergically active antidepressants are effective treatments
- Selective serotonin reuptake inhibitors (SSRIs) are 1st line (sertraline, citalopram, and escitalopram)
- 2nd line- Methylphenidate (especially with slow processing speed or inattention), lamotrigine (especially with comorbid epilepsy), levodopa or amantadine, and anticonvulsants such as valproate or carbamazepine (especially with comorbid irritability/anger and aggressive/self-destructive behaviours)

Wortzel HS, Oster TJ, Anderson CA, et al: Pathological laughing and crying: epidemiology, pathophysiology and treatment. CNS Drugs 22(7):531–545, 2008

Arciniegas DB, Wortzel HS: Emotional and behavioral dyscontrol after traumatic brain injury. Psychiatr Clin North Am 37(1):31–53, 2014

Case 2 update

- Wife felt rigidity and controlling behaviour were not dissimilar to baseline
- Psychoeducation provided re biopsychosocial treatment options for lability- wife actually liked the increased emotional expression and both felt able to manage with behavioural interventions