Clinical and methodological confounders in assessing the cerebellar cognitive affective syndrome in adult patients with posterior fossa tumours

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The Cerebellar Cognitive Affective Syndrome (CCAS) was first described by Schmahmann and Sherman as a constellation of symptoms including dysexecutive syndrome, spatial cognitive deficit, linguistic deficits and behavioural abnormalities in patients with a lesion in the cerebellum with otherwise normal brain. Neurosurgical patients with cerebellar tumours constitute one of the cohorts in which the CCAS has been described. In this paper, we present a critical review of the literature of this syndrome in neurosurgical patients. Thereafter, we present a prospective clinical study of 10 patients who underwent posterior fossa tumour resection and had a detailed post-operative neuropsychological, neuropsychiatric and neuroradiological assessment. Because our findings revealed a large number of perioperative neuroradiological confounding variables, we reviewed the neuroimaging of a further 20 patients to determine their prevalence. Our literature review revealed that study design, methodological quality and sometimes both diagnostic criteria and findings were inconsistent. The neuroimaging study (pre-operative, n = 10; post-operative, n =10) showed very frequent neuroradiological confounding complications (e.g. hydrocephalus; brainstem compression; supratentorial lesions and post-operative subdural hygroma); the impact of such features had largely been ignored in the literature. Findings from our clinical study showed various degree of deficits in neuropsychological testing (n =1, memory; n = 3, verbal fluency; n = 3, attention; n = 2, spatial cognition deficits; and n =1, behavioural changes), but no patient had full-blown features of CCAS. Our study, although limited, finds no robust evidence of the CCAS following surgery. This and our literature review highlight a need for guidelines regarding study design and methodology when attempting to evaluate neurosurgical cases with regard to the potential CCAS

Biography

He is currently core medical trainee-year 2 in east Yorkshire deanery, health education England, aiming to start specialty training in neurology 2020. He is an enthusiastic clinical and academic person with interest in neuroscience in general and cognitive vs motor neurology in particular. He is looking forwards to starting my neurology training with aims to do more academic, research works and be able to focus what he really want to do after completion of mandatory core medical training. This presentation and attendance at the conference means doors open to his future career and expansion on what he really intend to do to its best. He have past experience as neurology and neurosurgery ST1-2 levels back in the North of Iraq/Kurdistan and mainly acute medicine and other medical jobs and training posts in the last 2-3 years in the UK. Also as part of my passion about academic development he took on the opportunity of gaining teaching experience as lecturer of neurophysiology at university of Sulaimani, school of medicine between 2013 and 2015, in fact he was deputy head of the department for the year 2015

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