A Paediatric Case of Multiple Sclerosis (MS): The Challenges of Diagnosis and Neuropsychological Intervention

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Objective: With estimated incidence of 1-2 per 100,000 children in the UK, up to 5% of MS cases can manifest in childhood (Absoud et al., 2011). MS presents challenges with differential diagnoses related to conditions such as Acute Disseminated Encephalomyelitis (ADEM). Whilst both disorders are characterised by acute inflammatory presentations, ADEM is typically monophasic with greater presence of encephalopathy (Patel et al., 2009). Despite advances in healthcare, diagnosis can be lengthy (Krupp et al., 2007). Research indicates cognitive impairments for both conditions, with MS presenting more severe deficits across cognitive domains (Deery et al., 2010). This has implications for preparing families for the trajectory of children’s conditions including long term neuropsychological functioning. We introduce an exemplar case of a child diagnosed with ADEM and subsequently MS and discuss the neuropsychological implications for children/families.

Method: We present a 17-year-old young man diagnosed with recurrent ADEM at eight-years-old, with an MS diagnosis made at adolescence. Serial neuropsychological data is provided through assessment using the Wechsler Intelligence Scale for Children–IV UK Edition, Children’s Memory Scale, Delis-Kaplan Executive Function System and Behavior Rating Inventory of Executive Function.

Results: Neuropsychological assessment demonstrates average IQ and memory, with deficits in executive function. An initial diagnosis of recurrent ADEM at eight-years-old is subsequently changed to an MS diagnosis at adolescence, having implications with regards to adjustment and acceptance of condition.

Conclusion: We discuss the literature available regarding ADEM and MS in children in the context of this exemplar case and implications for neuropsychological follow-up and rehabilitation to support children and their families with these diagnoses.