Multiple sclerosis journal: Controversies in multiple sclerosis

A useful annual review of cognition in relapsing MS is beyond most neurologists- NO.

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Disclosures:

In the last 12 months, DL has received speaker fees from TEVA, Bayer, Novartis, Biogen and Almirall; consultancy from Novartis, Bayer, Biogen, TEVA; research support from Novartis, Biogen, Bayer. All fees are paid into her institution.

Word count: Title: 14. Text: 1056. References: 13. Tables 0. Figures 0.

There can be little doubt for those working in multiple sclerosis (MS) clinics, that cognition is a significant concern for many people with MS and has a major negative impact on their lives.[1] Cognitive difficulties have adverse effects on many aspects of participation, perhaps most damagingly employment; they increase the risk of driving accidents and falls; they hamper disease management, including decision making, medication adherence, symptom control, and rehabilitation benefit. These impacts are often misunderstood by family, friends, workmates and even health professionals. It would be a great service to people with MS if the underlying cause of these painful everyday difficulties could be identified and managed. This is probably best achieved by routine annual assessment, which has been recommended by NICE in the UK.[2]

Magnetic resonance imaging assessment is a poor indicator of cognitive function in individual cases.[3] Unfortunately, self-report of cognitive deficits in MS is confounded by depression and is not a reliable guide to objective cognitive performance. The usual cognitive “footprint” of MS differs from many more familiar neurological conditions such as Alzheimer’s disease, where the cognitive difficulties are all too apparent in casual conversation. The most prevalent, and often the first, cognitive deficit in MS is slowed information processing speed and the second most prevalent deficit occurs in memory function. These are difficult to identify in conversation, even for neurologists.[4] Often the manner in which a person with MS presents and talks in consultation will be discrepant from their ability to function; it can be hard to decide if the problem is cognition, depression, anxiety or fatigue, each requiring different management approaches.

The Brief International Cognitive Assessment for MS (BICAMS) provides a 15-minute cognitive assessment that is congenial for neurologists and patients.[5] If time is short, then 5 minutes spent completing the Symbol-Digit Modality Test (SDMT) is a worthwhile endeavour to glean a useful indication of cognitive status. BICAMS covers the most prevalent and earliest cognitive deficits in MS, slowed information speed and memory dysfunction. It requires no specialist training, can be used by any health professional and has a sensitivity equivalent to the recommended 90 minute MACFIMS battery.[6] The recommended cut-off for consideration of cognitive impairment is 1.5 standard deviations below the normative sample mean. BICAMS has proven ecological validity[7] and is closely related to work status.[8]

The utility and convenience of BICAMS is demonstrated by the 28 countries in the validation pipeline,[9] of which ten have published to date.[6] The international validation programme has been funded by a range of sources, including national MS Societies, Universities, Neurology associations and pharmaceutical companies, creating a broad stakeholder ownership and endorsement. BICAMS has also been recommended by the American Academy of Neurology.[10] Algorithms based on published national normative samples will be placed on the website this year,[11] allowing instant calibration of patient scores wherever there is an internet connection. The IPAD version of BICAMS, which will also become available this year, will make administration and scoring even more convenient and valid across centres.

A routine annual cognitive assessment establishes the cognitive status of the person with MS. It provides a precise individual baseline against which to evaluate future assessments. Even at presentation with the clinically isolated syndrome (CIS) or at initial diagnosis of MS, the assessment is useful. Some people with MS experience significant cognitive deficits early, which is helpful for them and their clinic team to know. If there is no evidence of cognitive deficits at the first assessment, the test procedure affords the opportunity to discuss the possibility of future cognitive difficulties and what lifestyle choices the person with MS can make to best preserve their cognitive function.[12] These positive lifestyle choices can then be routinely monitored, discussed and supported. NICE recommend that cognitive deficits should be routinely discussed.[2] Some health professionals think that people with MS do not want to know about cognitive difficulties; while clinical sensitivity and judgement are always required, for the majority of people with MS, protective, paternalistic attitudes should be consigned to previous centuries.

Following neurological and objective cognitive assessment, if the neurologist is satisfied that the person with MS is experiencing acquired cognitive deficits that are impacting negatively on their life, a management plan can be put in place. The first stage is information and support for the person with MS and those around them. The second stage is to amend the interaction style adopted by the MS clinic staff, to present information in a way that facilitates understanding and remembering. Particular risks, such as employment problems, poor disease management (adherence to medication), driving and falls safety can be monitored and addressed as appropriate.

It may be that referral to a cognitive specialist is warranted, for more detailed assessment and management. This scarce resource can be more effectively used if only patients with demonstrated cognitive impairment are referred. Treatment options that are increasingly available include individual cognitive rehabilitation and computerised interventions.[13] The growing universality of BICAMS means that the same criteria used for selecting and monitoring patients in research trials with cognitive outcomes are becoming measurable in the average MS clinic.

For the future, evidence based, clinically significant, differences between serial BICAMS assessments may be taken as indicating disease progression and require treatment review. Cognitive relapses may be operationally defined and indicate breakthrough disease. Cognitive function early in the disease is a good predictor of poorer prognosis; people with MS at increased risk of accelerated progression could be more frequently and extensively monitored. Currently, significant early cognitive impairment can be taken as a signal to monitor other disease parameters with accepted influence on treatment decisions.

For cognition to be properly addressed in the MS clinic, a 15-minute assessment once a year for all people with MS seems a small investment for so many benefits. It will identify those with early significant cognitive impairment, at increased risk of fast disease progression. It will alert MS clinic staff to those people with MS who have evidence of objective cognitive impairment and who require more support in disease management. Avoiding one urinary infection will easily save the cost of a few annual BICAM assessments. By introducing annual BICAMS assessments for people with MS and responding appropriately to the findings, people with MS will have more information about their disease, more control over its impact and reduced risk of morbidity. It is not beyond most neurologists to achieve this.

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