Commentary on Alhussona et al. - New-onset seizures as a sole clinical presentation of multiple sclerosis - MSJ

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Despite the now significant contribution of magnetic resonance imaging (MRI), the accurate and timely diagnosis of multiple sclerosis (MS) is still clinically challenging. Differentiating a radiologically isolated syndrome from MS requires an index clinical event or progression [1], and where a symptom cannot be reasonably robustly attributed to white or grey matter lesions, there is the risk of making the diagnosis of MS that is not helpful.

Alhussona et al. (this issue), with their case series, highlight the complexities of attributing paroxysmal, and in particular cortical, symptoms such as epileptic seizures to inflammatory demyelinating lesions, and establishing a diagnosis of MS based on them. Epilepsy is known to be more common in people with MS than the general population, but it may not be the cause of their epilepsy [2], and the risk of someone with epilepsy having MS appears to be very low when compared with a more typical MS presentations, such as transverse myelitis or optic neuritis (for example [3]). As such epilepsy per se is not a particularly MS specific clinical feature. Considering this the other way round, while the prevalence of cortical MS lesions has been linked with the likelihood of having epilepsy [4], and lesions in the temporal lobes perhaps more so [5, 6], this association is less clear than, for example, that of Lhermittes sign with cervical cord lesions [7]. As such cortical lesions per se are not a specific feature of epilepsy in MS.

Making a diagnosis of MS, based on a single clinical event and MRI, essentially relies on the sensitivity and specificity with which MRI criteria can predict subsequent MS-related clinical events. The performance of MRI criteria, applied following symptoms typically associated with white matter lesions, is such that they can be used diagnostically [1], but it is not known if the criteria are as applicable following symptoms likely to be of cortical origin. As Alhussona et al. make clear, diagnosing MS requires careful consideration of all the evidence, not simply the application of MRI diagnostic criteria. For some presentations, such as epilepsy, an MS diagnosis is likely to be more tentative than for more typical MS presentations. In such situations, where MS-like pathology may not be the clinically relevant process, the risks of disease modifying treatments will need to be even more carefully weighed against their potential benefits.

References

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