Can trauma provoke multiple sclerosis?

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Practical Neurology, 2, 309

Colin Mumford’s article was timely (Mumford 2002). However, he errs in advising ‘more weight should be placed on the best epidemiological data’, as this comes from really only one prospective study. In this, Sibley and colleagues studied the effects of non-specific physical trauma – rather than CNS-specific trauma – such as suturing of lacerations, removal of skin lesions, uterine dilatation, endoscopic procedures, fractures, sprains, burns, head injuries and abrasions (Sibley et al. 1991). It is hardly surprising that removing a thorn had no effect on the course of MS! Whiplash injury did not feature in this study. The method by which controls were selected was not described, there was a high drop-out rate, and the study lasted only 5.2 years and not 8 years as reported. All patients with MS had established disability, where exacerbations caused by specific focal trauma might have been difficult to assess. With at least eight comparisons among 170 patients, the statistical power was low for each group. In the retrospective analysis from the Mayo Clinic, there were multiple statistical errors and inadequate power to reach the conclusion (Siva et al. 1993), as accepted by the AAN subcommittee (Goodin et al. 1999). As Lauer has pointed out, ‘the design of both investigations violates a basic principle of cohort studies, i.e. independence of both cohorts’ (Laurer 1994). We have recently reported an association between cervical hyperextension-hyperflexion injuries – the most frequent traumatic trigger to MS – and symptomatic MS (Chaudhuri & Behan 2001). We would welcome an appropriately designed study to test this clinical observation.

REFERENCES


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