'Beta-interferons' and 'oligoclonal bands' in multiple sclerosis in India

Sir,

The short communication on study by Gupta *et al.*, titled "Beta-interferons in multiple sclerosis: A single centre experience in India", published in *Ann Indian Acad Neurol* 2010;13:132–5, is a landmark study from India for several reasons.[1]

(a) It is the first study from India documenting response to therapy in multiple sclerosis (MS) with β-interferons. The annualized relapse rate was reduced to zero, except in three patients out of 16, followed up for a mean period of 2.25 years. While no firm conclusions from this study can be drawn on efficacy outcomes of interferon beta-1a once a week (Avonex) versus interferon beta-1b every other day (Betaferon) on relapsing remitting multiple sclerosis (RRMS), it showed the only patient of secondary progressive multiple sclerosis (SPMS), after one relapse in the first year of therapy, being relapse free on interferon beta-1b every other day (Betaferon) followed for a mean period of 1.5 years.

Clinical trials such as EVIDENCE and INCOMIN have demonstrated greater efficacy for higher and more frequently dosed interferon beta-1a three times a week/ interferon beta-1b every other day versus interferon beta-1a once a week. Relapse and MRI benefits have been demonstrated with interferon beta-1a three times a week/ interferon beta-1b every other day in SPMS patients.[2] Clinical trials such as REGARD and BEYOND did not demonstrate any difference in relapse for interferon beta-1a three times a week or interferon beta-1b every other day compared to galtiramer acetate.[2]

Personal experience with β-interferons in MS from three tertiary care centers of the Armed Forces is nearly in keeping with the current study. However, in my personal opinion, treatment failure was a major concern with interferon beta-1a once a week in some of the cases (unpublished personal observation). Whether these patients would do better on interferon beta-1a three times a week/interferon beta-1b every other day alone; would be candidates for galtiramer acetate; or would be candidates for natalizumab alone or in combination, remains an open question.

(b) This study has also established that Indian MS patients tolerate β-interferons well.

(c) It is also noteworthy that nearly 85% patients with MS in this series from India have been demonstrated to have oligoclonal bands (OCBs) in cerebrospinal fluid (CSF),[1] which is in keeping with the Caucasian MS.[3] Earlier studies from India have documented lower incidence of OCBs in CSF (20–30%), largely because of greater proportion of opticospinal MS in those series,[4] which are now recognized to be part of Neuromyelitis Optica spectrum disorders.[3]

The presence of OCBs in CSF can be used as evidence for dissemination in space with lesser stringent criteria on MRI. It is also a predictor of future relapse in clinically isolated syndrome or clinically definite MS.[5] Hence, OCBs in CSF may play an important role in therapeutic decision making in Indian patients of MS.

(d) Further, the clinical profile of MS in this study was closer to the "Western" MS, perhaps because of application of stringent McDonald's criteria for diagnosing MS in the current study.[1]

With routine application of McDonald's criteria for diagnosing MS it is likely that more "Western type" cases of MS will be diagnosed in India. The role of NMO–IgG in opticospinal demyelinating disorders is being increasingly recognized.[3] Differentiating the two is important from prognostic and therapeutic standpoints, and for financial reasons in resource poor settings.

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References

1. Gupta Salil, Varadarajulu R, Ganjoo RK. Beta-interferons in multiple sclerosis: A single centre experience in India. Ann Ind Acad Neurol 2010;13:132-5.
2. Coyle PK. Disease-modifying agents in multiple sclerosis. Ann Ind Acad Neurol 2009;12:273-82.
3. Jacob A, Boggild M. Neuromyelitis optica. Ann Ind Acad Neurol 2007;10:231-9.
4. Jain S, Maheshwari MC. Multiple sclerosis: Indian experience in the last thirty years. Neuroepidemiology 1985;4:96-107.
5. Rammohan KW. Cerebrospinal fluid in multiple sclerosis. Ann Ind Acad Neurol 2009;12:246-53.

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