Matters arising in partial elementary and partial complex seizures.\(^3\) So these changes and a possibly related Leao’s spreading depression\(^6\) cannot explain why headache follows partial complex seizures but not partial elementary seizures. A different mechanism therefore should operate in post-ictal headache. Dana-Haeri et al.\(^7\) and Pritchard et al.\(^8\) reported a significant rise in prolactin levels after complex partial seizures but not after partial elementary ones. Such hormonal changes suggest involvement of hypothalamic nuclei in complex partial seizures. Does neuronal discharge involving noradrenergic and serotonergic pathways originating in the locus coeruleus and brainstem trigger the vascular changes that may be responsible for headache? A similar “central” mechanism has been hypothesised for migraine.\(^1\)

We think that to obtain useful information on the mechanism of post-ictal headache, further studies should be performed taking into consideration seizureophysiology and completed by neuroendocrinological and neurophysiological findings.

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References


A double-blind controlled trial of high dose methylprednisolone in patients with multiple sclerosis

Sir: High dose methylprednisolone seems to be a promising treatment in multiple sclerosis patients.\(^1\)

Some questions though remain unanswered by the authors: firstly, did the benefit last more than four weeks? From the study by Rose et al.\(^2\) it is known that the difference in recovery between ACTH and placebo-treated multiple sclerosis patients suffering from a relapse was no longer statistically significant after four weeks. Secondly, was the severity of relapse comparable in both groups? Clinical disability scores were higher in methylprednisolone treated patients than in controls; this might have reflected more serious relapse in the former which usually results in relatively more recovery as measured by steps on the EDSS score. Thirdly, in the chronic progressive group, the actively treated patients were also more disabled on the Kurtzke Scale than the controls; they improved markedly because of a decrease on spasticity.

The authors did not state whether there was any difference between the groups with regard to physiotherapy and treatment with muscle relaxants.

MC HOOGSTRAaten

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References


Miligan et al. reply:

The trial was designed only to assess short-term effects of high dose pulsed intravenous methylprednisolone (iv MP); we did not feel justified in withholding corticosteroids for longer than four weeks in placebo treated patients, especially those in whom disability increased during the trial. Forty-eight of 50 participants were reviewed 13–35 (mean 23, SD6) months later, under open conditions and in some cases after receiving additional treatment with corticosteroids. Mean disability status scores at entry, one month and later follow-up were 5–4, SD1–8, 4–2, SD2–4 and 4–9, SD2–8 in the iv MP treated group compared with 4–2, SD1–7, 4–1, SD2–0 and 4–8, SD2–8 in placebo treated patients. Four patients had improved, eight were unchanged and 12 worse in the iv MP group at late follow up; corresponding figures for placebo treated patients were 6, 8 and 10. Patients in relapse have not been distinguished from those with chronic progressive disease in this analysis. As expected, there is therefore no long-term benefit following the intention to treat with a single course of iv MP.

In assessing the balance between beneficial and side effects, eight adverse events occurred during 1,116 patient months of follow-up of which seven developed in actively treated patients but none was severe and only two (pain in the dorsal spine and hip, each without radiological abnormality) possibly related to iv MP.

Owing to a randomisation bias, patients treated with iv MP during relapse had higher disability scores at entry than those in the placebo group. Numerically, there was therefore a greater potential for recovery following iv MP treatment; however, we are unaware of evidence indicating that more severely affected patients do actually achieve greater spontaneous recovery over one month than individuals with milder relapses and there are considerable difficulties in attaching significance to numerical changes in the disability status scale which is not linear. Patients in relapse who were most severely affected at presentation did not make a disproportionate contribution to our statistical analysis of results (see fig 1). It is therefore likely that the clinical improvement observed was a consequence of treatment. These arguments also apply to the chronic progressive group in which there is even less...