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Moclobemide in the Prophylactic Treatment of Migraine

A Retrospective Analysis of 44 Cases

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The efficacy of the antidepressant drug amitriptyline in migraine prophylaxis was shown several years ago and has been repeatedly confirmed [1–3]. Similar results have been reported with other tricyclic antidepressants [2, 3]. However, side effects are relatively frequent and may be significant. The new antidepressant *moclobemide* is a generally well-tolerated selective and reversible MAO-A inhibitor with far less side effects than the tricyclics [4, 5].

Method and Results: The case histories of migraine patients seen in a Swiss neurological practice were reviewed. Migraine and tension-type headache were classified according to the diagnostic criteria of the International Headache Society [6]. Prophylactic treatment was only administered to patients with long-standing moderate to severe migraine inhibiting or prohibiting daily activities. During a period of 2 years, 44 migraine patients (25 without and 19 with aura) of a total of 223 who had had prophylactic antimigrainous therapy had been treated with moclobemide. In 19 of them moclobemide was given alone. In 16 patients moclobemide was used in addition to an ongoing conventional migraine prophylaxis, after adequate treatment had not led to a satisfactory result. In the other 9 cases, moclobemide was primarily combined with a standard prophylactic drug because the migraine was particularly severe. 300 mg/day of moclobemide was usually given in two doses of 150 mg, one in the morning, one at noon. In 4 cases (= 9%) moclobemide had to be discontinued because of gastrointestinal problems or insomnia during the first 4 weeks of treatment. In 12 patients (= 30%) the dosage of moclobemide was increased to 450 mg/day after 6–8 weeks. Therapy was continued until the migraine situation had been stable for at least 2 months. During moclobemide prophylaxis, migraine attacks were treated with salicylates, nonsteroidal anti-inflammatory drugs, or rarely with dihydroergotamine preparations. More recently, severe attacks were treated with sumatriptan. The *average duration of treatment* with moclobemide was 8 months (range 3–39 months). Generally, the onset of improvement of the migraine could be observed between 4 and 8 weeks of treatment with moclobemide. On average, the *frequency of migraine attacks* under moclobemide was reduced from 5.5 to 1.2 attacks per month, the *duration of the attacks* from 2.2 to 0.5 day. Eleven migraine patients (=25%) additionally suffered from mild depression, and 6 (= 14%) also had tension-type headache. 25 of the 44 patients treated with moclobemide had already had one or more conventional prophylactic migraine therapies without any effect or with unsatisfactory results. The *effect of moclobemide* on *migraine* was classified as follows: *mild* = intensity of pain, aura or accompanying symptoms markedly reduced *or* number of headache days per month (= frequency multiplied by duration of attacks) reduced by at least 50%; *good* = intensity of pain, aura or accompanying symptoms markedly reduced *and* number of headache days per month reduced by at least 50%; *excellent* = no more attacks in the preceding 2 months. The *therapeutic effect of moclobemide was good* (43%) or *excellent* (37%) in 80% of our migraine patients. The effect on migraines with aura seemed to be more marked than on migraine

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without aura. When given alone, moclobemide had a good or excellent effect in most cases. The effect was similar, but less marked, when moclobemide was added to a conventional prophylactic drug, when the effect of this drug was unsatisfactory after adequate treatment.

Discussion: Retrospective analysis of our patients' data seems to confirm our early impression that moclobemide is a very potent drug for migraine prophylaxis. In addition to their migraine, 25% of our patients had mild depression, and 14% tension-type headache. The great majority of patients, however, though having neither depression nor tension-type headache, responded to the treatment with moclobemide as well. The exact mechanisms of action of antidepressants in migraine are still not known. They seem to inhibit migraine by interacting with serotonergic receptors [7]. Our findings suggest that the selective and reversible MAO-A inhibitor moclobemide has a similar effect. Apart from a short report of a single patient treated with moclobemide for depression, and who in parallel showed marked improvement of her migraine [8], to our knowledge, this is the first report about several patients which suggests that moclobemide is a potent drug for migraine prophylaxis. Since this is a retrospective study, it has many deficiencies such as the lack of a control group or the uncertainty whether in some patients withdrawal of ergotamines and other analgesics may have contributed to the improvement of their migraine. Our promising results should encourage the performance of double-blind and placebo controlled studies to test these findings. Due to the high prevalence of migraine (about 15–18% of women and 6% of men) [9] and its economic and social impact (absenteeism and work loss) [10], the results of such studies would be of practical importance.

References

- Olesen J: A review of current drugs for migraine. J Neurol 1991;238(suppl 1):S23-S27.
- Raskin NH: Acute and prophylactic treatment of migraine: Practical approaches and pharmacologic rationale. Neurology 1993;43(suppl 3): S39-S42.
- Baumel B: Migraine: A pharmacologic review with newer options and delivery modalities. Neurology 1994;44(suppl 3):S13-S17.
- Fitton A, Faulds D, Goa KL: Moclobemide. A review of its pharmacological properties and therapeutic use in depressive illness. Drugs 1992;43: 561–596.
- Freeman H: Moclobemide. Lancet 1993;342:1528–1532.
- Headache Classification Committee of the International Headache Society. Classification and diagnostic criteria for headache disorders, cranial neuralgias and facial pain. Cephalalgia 1988;8(suppl 7):9–96.
- Silberstein SD, Silberstein MM: New concepts in the pathogenesis of headache. Pain Management 1990;3:334–342.
- Lipton RB, Stewart WF: The epidemiology of migraine. Eur Neurol 1994; 34(suppl 2):6-11.
- Claman JM: The potential effectiveness of moclobemide, the new monoamine oxidase inhibitor, in the prophylaxis of migraine. Headache 1993; 33:339.
- Stewart WF, Lipton RB: The economic and social impact of migraine. Eur Neurol 1994;34(suppl 2):12–17.