

Low-Dose Quetiapine Fumarate for Prophylaxis of Refractory Migraine, A Report of Five Cases

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Abstract

Objective of Study

To report the efficacy of quetiapine fumarate (Seroquel®, AstraZeneca) in the prophylaxis of refractory migraine in headache sufferers.

Design

Medical charts and patient headache diaries were reviewed for five patients with a history of migraine refractory to standard therapies. Patients had a documented history of failing, an average, 8 other pharmacological migraine therapies. Patients were treated with quetiapine 25 to 50 mg for 6 months.

Setting

Refractory migraine patients were recruited from a tertiary headache center.

Patient	Age	Gender	No. HA days before	@6 mo	% change	AEs	Dose quetiapane
1	48	F	30	15	50%	Vivid dreams	25 mg
2	60	F	16	4	75%	None	25 mg
3	55	M	20	4	80%	None	25 mg
4	72	M	30	10	67%	Drowsiness	25mg
5	39	F	30	6	80%	Eye twitch	50 mg

Main Outcome Measures

The average reduction in HA days per month was reduced by 70% (median 75%). All patients reported satisfaction with quetiapine as a prophylactic agent. Treatment-emergent adverse events appeared to be mild and did not interfere with compliance.

Conclusions

Quetiapine is an atypical antipsychotic agent and, at doses as low as 25 to 50 mg/day, appears to have a beneficial effect as prophylactic therapy in refractory migraine. Randomized, prospective, placebo controlled trials are needed to further assess its use in migraine.

Introduction

Patients with migraine suffer acute attacks of headache and other associated symptoms, which for many patients, are managed with acute therapies such as triptans. However, some patients with migraine have severe or frequent attacks that can be very disabling and interfere with daily activities. As a result, patients may require a preventive therapy that will reduce the frequency and severity of attacks.

Although there are many preventive therapies tried for migraine, only a few have been proven effective in randomized clinical trials (Silberstein et al., 2000). Other patients find these preventive therapies insufficient, and therefore, other more aggressive therapies may be tried. In these patients, comorbid conditions, and the secondary benefits of medications (such as sleep) may prove helpful in managing break-through attacks of migraine.

Objective

This study tested the efficacy of quetiapine fumarate (Seroquel®) as a preventive therapy in patients with refractory migraine.

Methods

Patients identified for treatment were selected from a tertiary care center and had a diagnosis of migraine but were refractory to standard acute and preventive therapies. The average number of failed migraine therapies was 8.

Five patients were identified and treated with quetiapine fumarate 25 mg or 50 mg at bedtime. Patients reported the number of migraine attacks for month 6 of treatment.

After 6 months of treatment, patients completed a patient satisfaction survey, a patient global assessment (PGA) of medication effect, and an adverse event (AE) assessment.

	Coexisting conditions	Failed therapies	Concomitant acute and rescue therapies permitted during treatment phase
MD	GERD	propranolol, verapamil, fluoxetine, gabapentin, divalproex, tizanidine	zolmitriptan, sumatriptan
VS	IBS	desipramine, trazodone, gabapentin, verapamil, rofecoxib, topiramate, divalproex, melatonin, atenolol	rizatriptan, metoclopramide
JD	HTN	paroxetine, amlodipine, protriptyline, tizanidine, trazodone, piroxicam, amitriptyline, propranolol	sumatriptan, isometheptene mucate
HH	DM sleep apnea	topiramate, amitriptyline, protriptyline, propranolol, baclofen, desipramine, zonisamide, verapamil, oxcarbazine, botulinum neurotoxin injections	DHE nasal spray, hydrocodone/APAP
KI	osteoarthritis	Celecoxib, propranolol, botulinum neurotoxin injections, divalproex, trazodone, nortriptyline, verapamil	zolmitriptan, isometheptene mucate, hydrocodone/APAP

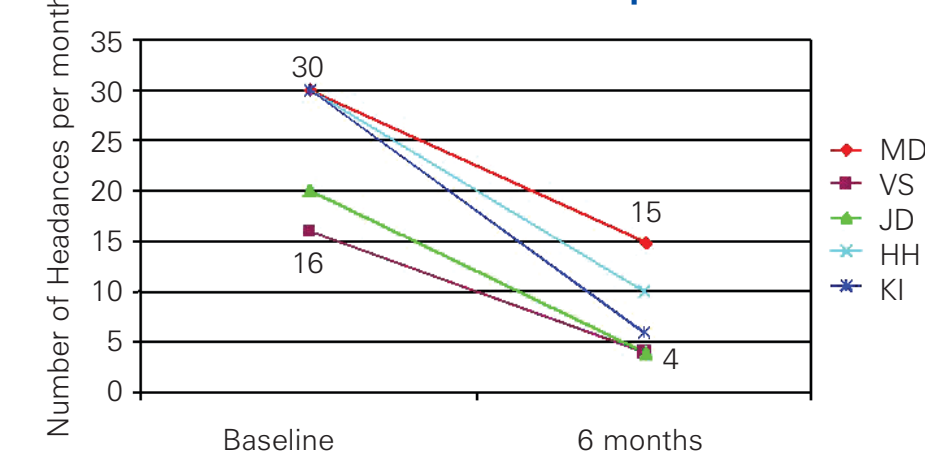
Results

Five patients were treated with quetiapine and all five completed the 6-month treatment period. There were 3 females and 2 males enrolled and the average age was 58.4 years. Four patients were put on quetiapine 25 mg at bedtime and one patient received quetiapine 50 mg at bedtime.

Patient Initials	Age/Gender	HA/mo before treatment	Quetiapine Dose @ 6 months	Patient Global assessment
MD	48/F	30	25 mg 15	improved
VS	60/F	16	25 mg 4	improved
JD	55/M	20	25 mg 4	improved
HH	72/M	30	25 mg 10	improved
KI	39/F	30	50 mg 6	much improved

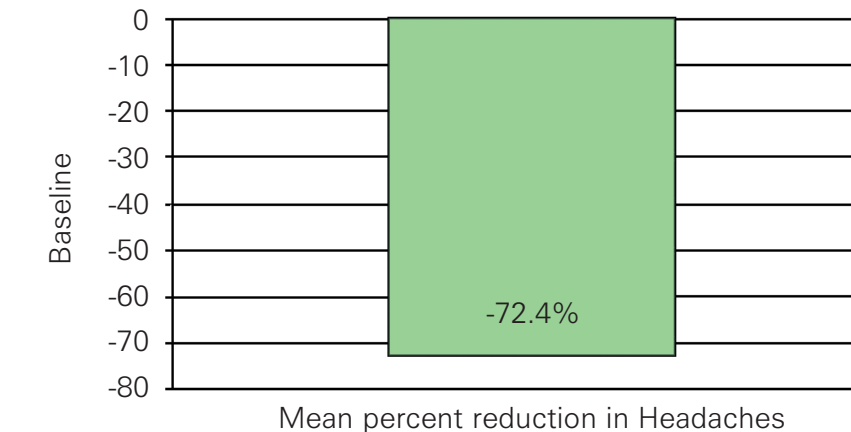
All five reported PGAs of either improved or much improved. They all reported satisfaction with quetiapine as a prophylactic agent.

Improvement in Headache Following 6-month Treatment with Quetiapine



All patients reported substantial reduction in headache days per month after 6 months of treatment.

Reduction in Headaches after 6-months of Quetiapine Prophylaxis



The mean percent reduction in headache number per month was reduced by an average of 72%.

Discussion

Quetiapine is an atypical antipsychotic agent that is currently indicated for treatment of schizophrenia, and does not have an indication for treatment of headache. This agent has effects of receptor antagonism at CNS serotonin (5HT₂) and dopamine (D₂) receptors. Both of these receptor effects are putatively useful in preventing migraine attacks. It is particularly noteworthy that these patients responded to relatively low doses of quetiapine even though they all had history of migraine refractory to numerous other prophylactic agents. Clearly, quetiapine may have potential use in preventing migraine in select patients. Randomized prospective, placebo controlled trials are warranted.

Conclusions

- Quetiapine 25 to 50 mg may be effective as a preventive therapy in patients with refractory, frequent migraine attacks.
- Quetiapine 25 to 50 mg well tolerated when given at bedtime, for up to 6-months of treatment.

References

Silberstein SD. Practice parameter: evidence-based guidelines for migraine headache (an evidence-based review): report of the Quality Standards Subcommittee of the American Academy of Neurology. *Neurology*. 2000;55(6):754-762.

Acknowledgments

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