# Letter to the Editor

## Sustained Hypotension With Initial Low Dose of Quetiapine in a Middle-Aged Man Receiving an Antihypertensive Agent

**To the Editor:** Quetiapine may induce orthostatic hypotension associated with dizziness, tachycardia, and, in some patients, syncope especially during the initial dose titration period.[1] Sustained hypotension (defined as a systolic blood pressure < 100 mm Hg for > 60 minutes) with quetiapine has been described only in significant overdoses.[2–4] Due to its potential for inducing hypotension, quetiapine may enhance the effects of certain antihypertensive medications.[1] We present a case of sustained hypotension in a middle-aged man on an antihypertensive agent with a single low dose of quetiapine.

***Case report.*** Mr A, a 46-year-old man, presented in 2010 with the police following self-inflicted lacerations to his wrists and a polypharmacy overdose of acetaminophen, codeine phosphate, and paroxetine in the context of marital discord. He described depressive symptoms, episodic severe anxiety symptoms, and a passive wish to die over the preceding 2 weeks.

He had a history of hypertension (controlled well on irbesartan 300 mg/d and hydrochlorothiazide 12.5 mg/d combination; blood pressure at presentation was 139/94 mm Hg). On examination, he presented as markedly distressed, crying, preoccupied with current stressors, and expressing ideas of hopelessness and suicidal ideas with intent. There was a mild derangement of his renal and liver functions, attributable to the overdose, that did not require medical intervention. He was diagnosed with an adjustment disorder with depressed mood (*DSM-IV* criteria), and the treatment prescribed was escitalopram 10 mg in the morning and quetiapine 50 mg bid for agitation. His antihypertensive medication was unchanged.

On the morning that this treatment was initiated, he had a fall 40 minutes after he received his first dose of escitalopram and quetiapine. He had taken his antihypertensive medication as usual that morning, and his blood pressure was within normal limits. On examination at the time of the fall, blood pressure was recorded as 65/43 mm Hg, and his electrocardiogram revealed no abnormalities. There was no loss of consciousness, and he had a full recollection of events afterward. Findings of the rest of the examination were completely within normal limits. Over the next 8 hours, he received intensive medical care, intravenous fluids, gelofusine, and metaraminol 0.5 mg. At the end of 1 hour of this treatment, his systolic blood pressure was 55 mg Hg, and at the end of 8 hours, he achieved a blood pressure of 105/70 mm Hg. Over the next 16 hours, his blood pressure continued to remain unstable, finally stabilizing about 24 hours after the fall at about 120/76 mm Hg. Both the antihypertensive medication and quetiapine were stopped. He maintained his improvement and was discharged from the hospital 10 days later.

The patient was being treated with an angiotensin II receptor antagonist and thiazide diuretic for hypertension. Irbesartan blocks the potent vasoconstrictor and aldosterone-secreting effects of angiotensin II, and hydrochlorothiazide has diuretic, natriuretic, and antihypertensive effects.[1] This combination is known to potentiate the antihypertensive actions of ganglionic or peripheral adrenergic-blocking drugs, like quetiapine, which has high antagonistic activity at α-adrenergic receptors.[1] No other risk factors for hypotension were operative in this case. It is noteworthy that the hypotension was severe and sustained given that the patient had received only his first dose of 50 mg quetiapine and that, prior to receiving this dose, his blood pressure was normal and stable. This suggests caution when initiating the use of quetiapine in individuals receiving antihypertensive medication(s), even in the absence of cardiovascular or other risk factors for hypotension. In such circumstances, we suggest initiation of quetiapine therapy at a dose of 12.5 or 25 mg, slow upward titration, and careful monitoring of blood pressure. This caution is all the more important as quetiapine is increasingly being used for indications other than psychosis, in a variety of treatment settings.[5]

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