CORRESPONDENCE

Worsening of rosacea in patients treated with dihydropyridine calcium channel blockers: a clinical observation

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A 45-year-old woman made an outpatient visit to our hypertension clinic. The woman was diagnosed with essential hypertension, and she had an average blood pressure of 150/90 mm Hg, a heart rate of 70 bpm and a body mass index of 26 kg m⁻². The patient was not receiving any treatment at the time. In her medical history, there was a previous diagnosis of rosacea, and blushing was observed. She reported irregular menses over the past year, with her last menses ~2 months before the visit.

She was prescribed amlodipine (5 mg) and instructed to check her blood pressure three times a week for the next month. After 2 weeks, the patient returned to the clinic because of worsening skin flushing. The patient reported neither lifestyle changes nor the use of any other drugs or cosmetics. She reported that the 'redness' on her cheeks worsened after a few days and that, after a week, she started to notice an increased number of telangiectasias. Treatment with amlodipine was discontinued, and the patient was prescribed ramipril (5 mg). After 2 additional weeks, skin flushing was reduced from constant to occasional, and there was a consistent decrease in the appearance of telangiectasias. This case suggests a possible association between treatment with calcium channel blockers (CCBs) and the exacerbation of rosacea.

Rosacea is a common skin disease with a prevalence of 0.5–10%. The disease typically manifests with erythematous flushing, blushing, telangiectasias, papules and pustules in the central third of the face. Rosacea is frequently undiagnosed because the patient may be unaware of these symptoms before diagnosis, but a variety of triggers or factors, such as vasodilators, can induce or exacerbate rosacea.¹

Dihydropyridine CCBs are powerful vasodilators, and flushing is a common adverse effect of treatment with CCBs. Thus, the use of CCBs may favor the appearance of subclinical rosacea and/or exacerbate pre-existing rosacea, as vasodilation stimuli can trigger this skin disorder.

A retrospective analysis was designed to investigate the possible association between CCBs and rosacea.

The last 100 essential hypertensive patients who discontinued treatment with CCBs because of adverse effects were selected from our outpatient database.

The selected patients included 54 women and 46 men, ranging from 35 to 72 years old. These patients were affected by essential hypertension and began treatment with CCBs for the first time before interrupting treatment because of adverse side effects.

The side effects reported are listed in Table 1.

Patients who presented with flushing were referred to a dermatologist. Of the 62 patients who discontinued therapy because of flushing, 34 were diagnosed with rosacea or pre-rosacea. Rosacea was diagnosed in 34 patients, 23 women and 13 men, who were between 43 and 57 years of age. These patients were diagnosed with hypertension within the last 3 to 5 years and had not

previously taken CCBs. When patients with rosacea discontinued the use of CCBs, there was a slow but consistent reduction of symptoms.

In all current clinical guidelines, CCBs belong to the class of recommended first-line antihypertensive drugs for the treatment of essential hypertension. One of the main clinical side effects of CCB use is flushing, which is experienced by ~5% of patients. These types of side effects, which are drug- and dose-related, have a greater incidence in women than in men (4.5 versus 1.5%, respectively). One of the most frequent and difficult problems arising during antihypertensive therapy is lack of compliance, caused by the life-long treatment duration and mildness of symptoms.² Possible causes of non-compliance with antihypertensive drug regimens include adverse side effects. Many studies have shown that non-compliance is a cause of failure of medical therapy and of disease progression. Strategies to improve compliance with medication intake include appropriate drug selection based on patient characteristics.³ Rosacea is not listed as a contraindication in the Summaries of Product Characteristics of common clinically relevant CCBs. Physicians should be aware that subclinical rosacea could be the cause of treatment discontinuation or of the lack of

Table 1 Adverse side effects that forced the interruption of the treatment with CCBs

	Side effects		
	Women	Men	Total
Flushing	13	10	23
Peripheral edema	12	15	27
Flushing and edema	20	19	39
Tachycardia	6	5	11

compliance with antihypertensive therapy. When possible, it may be useful to choose another first-line antihypertensive drug instead of CCBs.

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