

Metoprolol succinate therapy associated with erythema multiforme

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Abstract

Metoprolol succinate is a widely used medication for the management of hypertension, heart failure, and angina. We report the case of a 36-year-old woman who developed erythema multiforme after administration of a low dose of this drug. She also presented with pruritic burning pain throughout her body accompanied by chills. While erythema multiforme has been reported with carvedilol, this is the first observation of metoprolol succinate causing this and physicians should be aware of this potential, yet rare, side-effect. (Cardiol J 2009; 16: 82–83)

Key words: metoprolol, erythema multiforme

A 36-year-old African-American woman with past medical history significant for pulmonary embolism diagnosed in 2003 in the setting of a left foot surgical operation, and a recent non-ST elevation myocardial infarction, presented to the cardiology clinic with a new rash after initiating metoprolol succinate.

About one month earlier the patient was admitted to the hospital with a nonradiating substernal chest pain associated with dyspnea and nausea. The left heart catheterization showed a severely depressed ejection fraction moderate to severe disease throughout the left anterior descending and circumflex arteries. Given that no culprit lesion was identified, medical therapy was initiated to manage the coronary disease and the new onset cardiomyopathy. She was discharged with carvedilol, spironolactone, clopidogrel, lisinopril, niacin, simvastatin, and warfarin. A week later, she was seen in the clinic with nausea, vomiting, and flushing. She was told by her primary care physician to stop all medications except warfarin. The patient was subsequently seen in the emergency department for intravenous

hydration, and her symptoms resolved. During her next cardiology visit, clopidogrel, aspirin, and simvastatin were restarted.

After tolerating these medications for about a week, metoprolol succinate 12.5 mg once a day was initiated. About three days later, the patient presented with pruritic burning pain throughout her body accompanied by chills, but no fever. No dysphagia or visual changes were noted. The rash was erythematous annular macules. Some lesions were oedematous and slightly raised due to scratching. No vesicle or bulla was noted. It involved the neck, chest, abdomen, back and bilateral extremities including the palms and soles. No ocular or oral mucosal involvement was noted.

She was seen urgently at a dermatology clinic the same day and diagnosed with erythema multiforme. She was given oral hydroxyzine with good symptom relief. After two days of therapy and discontinuing metoprolol, trace lesions were visible on bilateral palms only (Fig. 1) and it completely resolved in 5 days. No biopsy was taken because the presentation, lesions and the response

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Figure 1. Resolving erythema multiforme seen in the R palm after two days of therapy with hydroxyzine.

to the therapy were consistent with erythema multiforme.

Erythema multiforme (EM), described as concentric “target” lesions, can be caused by infections, autoimmune disease, neoplasms, drugs, or medications. Although EM is considered to be a self-limiting condition, it overlaps with a more severe variant: Stevens Johnson syndrome. The pathophysiology is not clearly known although it has been shown that 43% of the cases of EM, Stevens Johnson syndrome, and toxic epidermal necrolysis that are severe enough to require hospitalization are caused by drug reaction. The common culprits are phenobarbital, nitrofurantoin, trimethoprim/sulfamethoxazole and ampicillin [1]. A previous case

report showed that carvedilol, a beta1, and alpha1 blocker have been associated with Stevens-Johnson syndrome [2]. Although EM is not associated with significant mortality and usually resolves in 2 to 4 weeks, it has not been previously reported as an adverse side effect.

Metoprolol succinate (Toprol XL) is a widely used medication in the management of hypertension, heart failure, and angina. More common adverse effects of the medication are fatigue, depression, and syncope. Although some rashes, such as worsening psoriasis, have been reported in previous reports, serious side effects involving skin are rare [3]. This is the first observation of metoprolol succinate causing erythema multiforme, and physicians should be aware of this potential rare side effect.

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