

Atorvastatin Induced Erythema Multiforme

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Abstract

Introduction: Atorvastatin is an inhibitor of hydroxymethylglutaryl-coenzyme A (HMG-CoA) reductase, used as a cholesterol-lowering medication and alleviate progression protected against high glucose-induced apoptosis in cardiomyocytes and alleviated experimental diabetic cardiomyopathy. Few cases of statins induced erythema multiforme have been described to date. We present a case of photoinduced erythema multiforme due to atorvastatin that, to our knowledge, has not been previously reported.

Case report: 49-year-old man with personal history of hyperlipidemia presented to us with a 3 months history of photoinduced lesions on the dorsum of his hands that he developed after starting treatment with atorvastatin. There was not mucous membrane involvement. He did not report herpes simplex infection.

Discusión: The most common triggers of erythema multiforme include drug intake, HSV infection, and exposures to the sun light giving rise to photosensitive erythema multiforme. Drug related erythema multiforme typically affect the oral mucose and may be associated with antibacterial (sulfonamides, penicilins, cephalosporins, quionolones), anticonvulsants (barbiturates, hydantoines) or analgesics. Photodistributed erythema multiforme also has been described after ingestions of drugs followed by sun exposure but few cases related with statins have been described thus far.

Conclusión: It is of importance to acknowledge the possible role of statins in a patient with erythema multiforme. Discontinuation of these statins might result in a substantial improvement of lesions.

Keywords: Atorvastatin, Erythema multiforme, Cutaneous drug reaction

1. INTRODUCTION

Statins are the most prescribed medication internationally. Atorvastatin (ATOR) is an inhibitor of hydroxymethylglutaryl-coenzyme A (HMG-CoA) reductase and is used as a cholesterol-lowering medication. A recent study reported that ATOR alleviated progression protected against high glucose-induced apoptosis in cardiomyocytes and alleviated experimental diabetic cardiomyopathy [1,2].

Cutaneous adverse effects induced by statins are uncommon [3]. Few cases of statins induced erythema multiforme have been described to date [4,5]. We present a case of EM due to atorvastatin that, to our knowledge, has not been previously reported.

2. CASE REPORT

A 49-year-old man with personal history of hyperlipidemia and hypothyroidism treated with levothyroxine presented to us with a 3 month history of photoinduced lesions on the dorsum of his hands that he developed after starting treatment with atorvastatin (Figure 1). There was not mucous membrane involvement. He did not report herpes simplex infection. The lesions improved after withdrawing the treatment and reappeared by reintroducing the statin in lower doses. Histopathologic examination of a skin biopsy demonstrated apoptotic keratinocytes in the epidermis basal, edema in the papillary dermis associate with interface dermatitis and perivascular lymphocytic infiltrate in the dermis (Figure 2).



Figure1. Photo induced erithematous lesions on the dorsum of hands during the atorvastatin treatment.

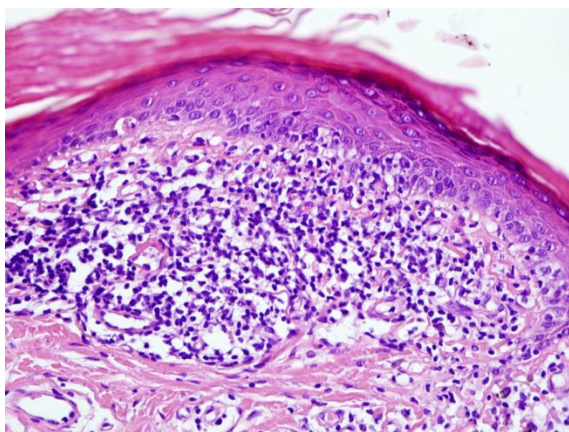


Figure2. Apoptotic keratinocytes in basal epidermis, edema in the papillary dermis with interface dermatitis and perivascular lymphocytic infiltrate in the dermis.

3. DISCUSSION

As the pharmacological base of cholesterol treatment, statins benefit has been reported in the primary and secondary prevention of cardiovascular disease. They reduce serum atherogenic lipoprotein concentrations by blocking hepatic cholesterol synthesis and increasing the availability of low density LDL receptors in hepatocytes. The most commonly reported side effects include hepatotoxicity, abdominal discomfort, headache, myalgias and myositis [6,7].

Statin-associated side effects include myopathy, diabetes mellitus, hepatopathy, autoimmune reactions and dermatological lesions such as uricaria, eczema, dermatitis, porfira cutanea tarda, phototoxicity, liquenoid eruptions, interstitial granulomatous dermatitis, lupus erythematosus, dermatomyositis. Few cases of erythema multiforme related with statins have been described thus far [3-9].

Erythema multiforme (EM) is an acute, self-limiting disease of the skin and mucocutaneous membranes characterized by symmetrically distributed erythematous macule-papules. Most often located on acral regions, EM has a tendency for recurrences. Histopathological examination shows perivascular mononuclear cells infiltrate and edema in the papillary

dermis, associated with interface dermatitis, vacuolar damage and apoptosis of basal keratinocytes, resulting in areas of epidermal necrosis [8,9].

The most common triggers of erythema multiforme include drug intake, HSV infection, and exposures to the sun light giving rise to photosensitive erythema multiforme. Drug related erythema multiforme typically affect the oral mucosa and may be associated with antibacterials (sulfonamides, penicilins, cephalosporins, quionolones), anticonvulsants (barbiturates, hydantoines) or analgesics. Photodistributed erythema multiforme also has been described after ingestions of other drugs like ofloxacin and tocilizumab [12-14]. Erythema multiforme induced by simvastatin, pravastatin and rosuvastatin has been previously described [4,5,13]. Nonetheless, this is the first case of erythema multiforme induced by atorvastatin.

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