

Diltiazem-induced skin discoloration along with peripheral veins of forearm**Banu KARAKUS YILMAZ¹, Yahya Ayhan ACAR², Mucadiye YORUK³, Hatice TOPCU⁴, Erdem CEVİK⁵, Ibrahim Ikizceli⁶**¹Department of Emergency Medicine, Sisli Hamidiye Etfal Research and Training Hospital, Şişli Hamidiye Etfal EAH, 19 Mayıs Mah. Şişli Etfal Sok, Şişli, İstanbul, Turkey²Department of Emergency Medicine, Etimesgut Military Hospital, Etimesgut Asker Hastanesi, Etimesgut, Ankara, Turkey 06797³Department of Emergency Medicine, Sisli Hamidiye Etfal Research and Training Hospital, Şişli Hamidiye Etfal EAH 19 Mayıs Mah. Şişli Etfal Sok, Şişli, İstanbul, Turkey⁴Department of Emergency Medicine, Sisli Hamidiye Etfal Research and Training Hospital, Şişli Hamidiye Etfal EAH, 19 Mayıs Mah. Şişli Etfal Sok, Şişli, İstanbul, Turkey⁵Department of Emergency Medicine, Van Military Hospital, Van Askeri Hastanesi, Altıntepe, Van, Turkey⁶Department of Emergency Medicine, Istanbul University Cerrahpasa Medical School, Turkey***Corresponding author**

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Abstract: Skin reactions are common drug side effects. Calcium channel blockers are a commonly prescribed group and diltiazem is one of them. We reported a skin discoloration after intravenous administration of diltiazem in emergency department.

Keywords: Calcium channel blockers; Diltiazem; Adverse effect; Skin

INTRODUCTION

Diltiazem is a widely prescribed calcium channel blocker for cardiovascular diseases. Most of the side effects of calcium channel blockers are minor such as flushing, headache, ankle edema, palpitations and most of them resolve spontaneously [1].

Diltiazem associated skin lesions seem rare but they can be serious reactions even life-threatening as toxic epidermal necrolysis [2]. Most of diltiazem-induced skin reactions have been reported for oral medication and they occur in two weeks after initializing oral treatment [2]. The patient reported herein is an acute, painless, blue skin discoloration after

intravenous diltiazem administration.

CASE REPORT

Anamnez: A 56-year old woman was admitted to emergency department because of palpitation and chest pain. She had diabetes mellitus and hypertension and using her medications properly.

FM: Her vital signs were BP: 152/104 mmHg, pulse rate: 180 bpm (regular), temperature: 36.1 °C and SaO₂: 97%. Heart and lung auscultation and systemic examination did not show any abnormality. ECG was supraventricular tachycardia. (Figure 1)

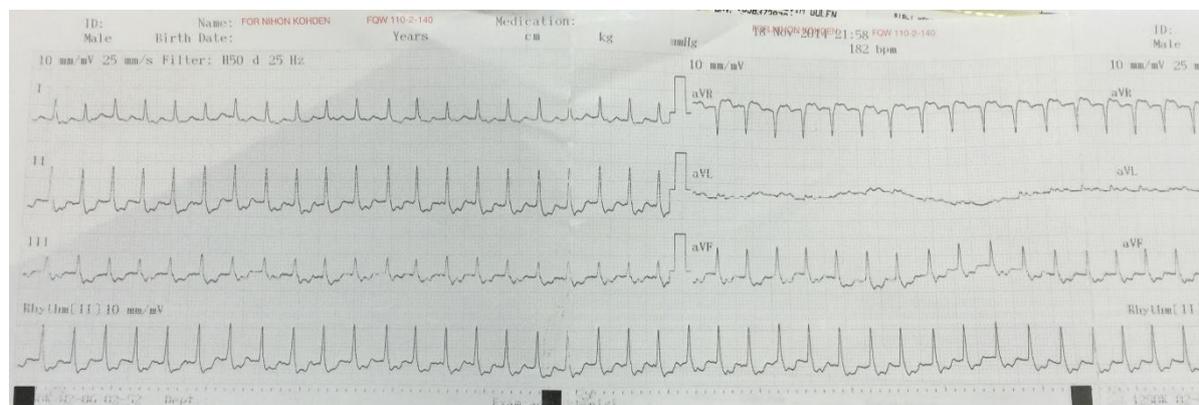


Fig- 1: Initial EKG of the patient shows supraventricular tachycardia.

Complete blood count, electrolytes, renal function tests and cardiac enzymes were all in normal ranges. In ED the patient was administered 20 mg diltiazem (slow infusion) intravenously from dorsal right hand intravenous access. Her tachycardia was resolved but just after administration of diltiazem; blue discoloration was occurred in her right forearm volar surface along with venous structures in which diltiazem was administered. (Figure 2) That discoloration was considered as an allergic reaction and 80 mg prednisolone and pheniramine maleate were administered.



Fig-2

The patient discharged from ED after 3-hour follow in observation unit. The patient was discharged without any medication and recommended to come for follow-up after two days. Patient had no complaint and within two days it was observed that the discoloration was resolved. (Figure 3)



Fig-3

DISCUSSION

Cutaneous reactions due to calcium channel blockers have been described and these reactions occur due to diltiazem more frequently than other calcium channel blockers [2].

Garijo et al reported a case series of three maculopapular skin reactions due to oral diltiazem treatment and they also suggested epicutaneous tests for the diagnosis [3]. Boyer *et al.*; 1 reported two cases of diltiazem-induced hyperpigmentation due to oral diltiazem treatment and lesions seen in the sun-exposed areas. (4) In our case, the reaction was discoloration of venous structures such as thrombophlebitis and it was an acute reaction just after intravenous injection of diltiazem.

Mondor's disease is a discoloration of breast skin and is a superficial thrombophlebitis of breast and its most common presentation is tender and painful discoloration [5, 6]. Main etiologic factors have been contributing as local trauma and surgical biopsies for Mondor's disease but recently intravenous drug abuse was reported as an etiologic cause [7]. The lesion classically disappears in 2-8 weeks spontaneously [8]. In our patient discoloration occurred in forearm skin and had no pain and/or tenderness along with discoloration site.

The patient did not give consent to skin patch test or biopsy. So definitive diagnosis could not be made. We hypothesized that discoloration could be a

result of a hypersensitivity reaction or minimal superficial thrombophlebitis.

CONCLUSION

Skin reactions are common adverse effects of many drugs. To our knowledge, discoloration along with peripheral veins due to intravenous diltiazem administration is the first case report.

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