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REVERSIBLE DIFFUSE CHOROIDAL LEAKAGE ASSOCIATED WITH DARATUMUMAB AND SUCCESSFULLY MANAGED WITH CONTINUED DESENSITIZATION THERAPY

Metban Mastanzade [1], Zafer Cebeci [2], Kıvanç Koruk [1], Kerem Yiğit [2], Sevgi Kalayoğlu Beşışık [1]

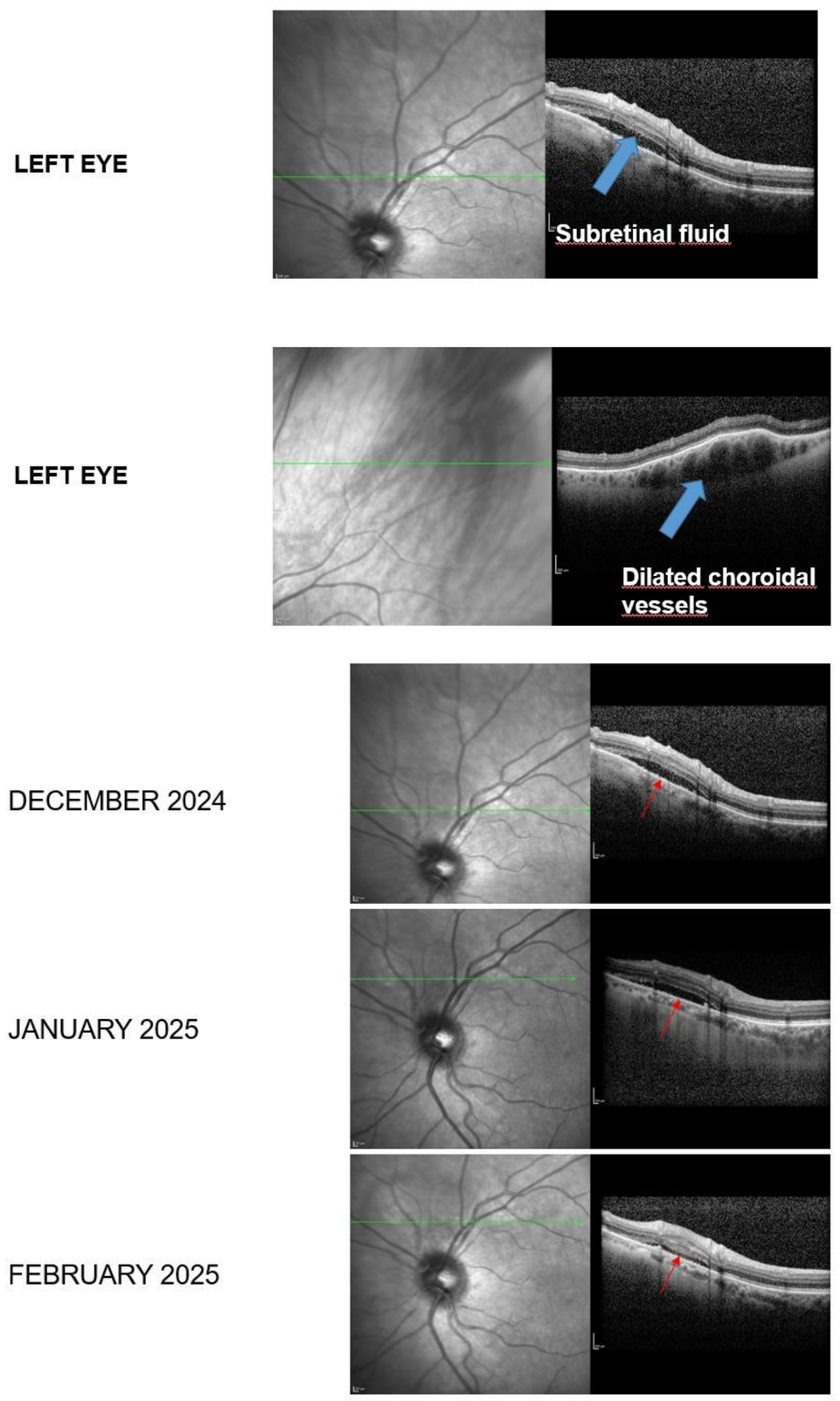
[1] Istanbul University, Istanbul Faculty of Medicine, Department of Internal Medicine, Division of Hematology
[2]Istanbul University, Istanbul Faculty of Medicine, Department of Ophtalmology

Introduction

CD38 is expressed on both normal hematopoietic and non-hematopoietic tissues, including the eye. It appears to play a role in regulating leukocyte motility, adhesion, and extracellular matrix remodeling.Here, we report a case of choroidal leakage following treatment with daratumumab (Dara), an anti-CD38 monoclonal antibody primarily used in multiple myeloma (MM), due to the high expression of CD38 on MM cells.

Case Report

A 68-year-old woman with MM initially responded to the CyBorD regimen, underwent autologous stem cell transplantation, and received lenalidomide maintenance therapy. Upon relapse, a Dara-Vd regimen was initiated.The first dose of dara was administered over two consecutive days. Following the second-day infusion, the patient developed blurry vision and ocular pain. Fundoscopy performed the next day revealed Drusen-like deposits in the mid-periphery of both eyes. Fluorescein and indocyanine green angiography demonstrated bilateral, diffuse choroidal leakage in the late phases.A decision was made to reduce the infusion rate and administer daratumumab as a split-dose solution throughout the day. After a two-week interval, treatment was resumed, as the patient's symptoms and ophthalmologic findings had completely resolved. The patient was closely monitored by an ophthalmologist within 24 hours after each infusion. During the biweekly Dara protocol, a standard infusion protocol was transitioned. No recurrence of symptoms or new ocular findings was observed.To date, the patient has completed five cycles of Dara-Vd and has achieved a very good partial response without any ocular complaints.



Conclusion

The pathophysiology of daratumumab-related ocular side effects remains unclear. As an IgG-kappa monoclonal antibody, dara may induce such effects through antibody-mediated interactions with CD38-expressing tissues. We implemented the 12-step desensitization protocol developed by Castells and colleagues, which is typically used for managing antibody-related hypersensitivity reactions. Our experience suggests that this approach is effective and may help prevent the discontinuation of an otherwise beneficial treatment in MM.

Contact: sevgikalayoglu@gmail.com