Extensive macular edema in a patient with Coats disease: a case report

Rodrigo Álvares Salum Ximenes
Alessandra Thomé Rassi
Tatiana Vieira Brito

Purpose: Coats' disease was originally defined as a unilateral idiopathic exudative retinopathy in young males, characterized by abnormal retinal vascular telangiectasia with intraretinal and subretinal lipid exudation. Herein, we describe a case of a patient with extensive macular edema related to Coats disease.
Methods: A 10-year-old male patient presented with a sudden painless diminution of vision in his right eye (RE) of 1 day duration, associated with the presence of a black spot in the center of vision. He had no significant ocular history or similar family history Ocular examination at presentation revealed a best corrected visual acuity (BCVA) of less than 20/400 in his RE and unaided visual acuity of 20/20 in his left eye (LE). Dilated fundus evaluation in RE showed the presence of a vascular lesion with telangiectasias in the inferior temporal arch, associated with exudation and perilesional hemorrhage. Optic coherence tomography (OCT) was performed which demonstrated the presence of an extensive area of subretinal fluid. Fluorescein angiography (FA) showed leakage from the telangiectatic vessels.
Results: The modality of management for Coats' disease essentially depends upon the stage of the disease. In this case, we chose to simultaneously perform laser photocoagulation in the telangiectatic region, associated with the intravitreal application of 0.05 ml of Ranibizumab (Lucentis) 10mg/ml. After 45 days of starting treatment, the patient already had BCVA of 20/100 and after 90 days, visual acuity had already returned to normal parameters of 20/20. On OCT, the presence of subretinal fluid was no longer visible.
Conclusion: Historically, the main treatment included repetitive laser photocoagulation to areas of nonperfusion and telangiectasias. Recent studies have demonstrated upregulation of VEGF in patients with Coats' disease, and this has prompted interest in intravitreal anti-vascular endothelial growth factor (anti-VEGF) therapy as an adjuvant to laser photocoagulation.