Letters to the Editor

Bilateral hypertensive retinopathy diagnostic of pheochromocytoma

Retinopatía hipertensiva bilateral diagnóstica de feocromocitoma

Dear Editor,

Pheochromocytoma is a catecholamine-secreting tumor derived from the adrenal medulla and an infrequent cause of malignant arterial hypertension (0.1%). It exhibits greater incidence in the fourth decade of life and the characteristic triad consists in headaches, palpitations and diaphoresis.1

The authors present the case of a male, 30, who visited due to blurry vision in the right eye (RE) with 8 h evolution. Personal history involved tobacco smoking since 10 years ago and frequent oppressive headaches associated to nausea, vomiting and excessive sweating. These symptoms diminished after analgesia and improved with physical exercise. Examination revealed visual acuity (VA) of 20/200 in the right eye and 20/20 in the left eye. Ocular fundus exhibited bilateral and asymmetric cotton-like exudates, predominantly papillary flame-like retinal hemorrhages and partial deletion of the papilla at the superonasal level. OCT revealed a significant macular edema (Fig. 1).

Fig. 1 – (A) OCT image, showing slight intraretinal edema and abundant subretinal liquid associated to hypertensive retinopathy; (B) near complete recovery of foveal profile after pheochromocytoma exeresis: (C) some hyper reflective points can still be observed, compatible with ocular fundus exudates in resolution.

involvement, mainly in the right eye, with abundant exudation and intraretinal edema (Fig. 1A).

Due to suspected acute hypertensive retinopathy caused by hypertensive crisis, arterial pressure (AP) was taken, 230/150 mmHg with similar values on several readings. The diagnostic of malign arterial hypertension in a patient without known antecedents caused the patient to be referred to internal medicine for urgent medical treatment and secondary hypertension study. Renal magnetic resonance revealed a lesion which depended on the left suprarenal gland, with well defined edges, solid and necrotic-cystic areas which produce a mass-like effect (Fig. 2). 24-h urine analysis for noradrenaline and normetanephrine was positive, with the remaining supplementary tests being negative. With the diagnosis of left pheochromocytoma, surgical resection was decided with laparoscopic adrenalectomy. 3 months later, AP readings returned to normal, VA was 20/20 in both eyes and the exudation, hemorrhages and partial papillary edema progressively disappeared (Fig. 1C). Macular OCT revealed a near complete recovery of the normal foveal profile with progressive subretinal liquid reabsorption (Fig. 1B). In addition, headaches and excessive sweating also disappeared.

Malign hypertension can involve hypertensive encephalopathy expressions such as intense headaches, vomit, visual alterations, convulsions or even coma.2 Pheochromocytoma should be considered in differential diagnostics in the presence of said symptoms. In the present case, ophthalmological involvement pointed to a suspicion of hypertension and therefore we consider ocular fundus as a necessary exploration in cases of severe or prolonged cephalic.

**References**


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**VEGF-A and VEGF-Ax: Bad protein and good protein**

**VEGF-A y VEGF-Ax: proteína mala y proteína buena**

Dear Editor,

The vascular endothelial growth factor (VEGF) is crucial for the development of blood vessels and endothelial cell proliferation, with VEGF-A being its main conductor in playing an essential role in physiological processes. However, a cruel irony underlies VEGF-A: on the one hand this molecule is key in the development of organs as well as in human growth and maintenance but on the other hand it promotes the growth of solid tumors and metastasis as well as a range of anomalous vasoproliferative processes which compromise visual function.1 Since VEGF was discovered 25 years ago, researchers have focused on finding a way in which blocking VEGF could slow down or halt the growth of tumors which require blood supply to survive and develop. In 2003, the first phase 3 clinical trials with a VEGF

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1 Please cite this article as: Asensio-Sánchez V.M. VEGF-A y VEGF-Ax: proteína mala y proteína buena. Arch Soc Esp Oftalmol. 2015;90:149-150.