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Spontaneous Submacular Hemorrhage After Aspirin Therapy

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Abstract | **Case Report**

***Result**:* Ocular side effects of aspirin are rare, especially retinal damage. We report a case of a 69-year-old patient who presented with decreased visual acuity after taking aspirin. Clinical examination revealed a spontaneous sub-macular hemorrhage. Early treatment restored good visual acuity. However, monitoring is essential, as complications are frequent.

Key words: hemorrhage, macular, aspirin.

INTRODUCTION

Drug-induced sub-retinal haemorrhage is a very rare and urgent condition which determines the patient's visual prognosis. It requires urgent management in the early stages to avoid irreversible sequelae **1**. We report the case of one patient.

CLINICAL CASE

This is a 69-year-old patient with no notable pathological history. He was admitted for a sudden drop in visual acuity in the form of a black haze that occurred on awakening after taking aspirin the previous day and without any notion of trauma.

On ophthalmological examination, visual acuity was limited to light perception in the right eye and 7/10ths in the left. Anterior segment examination revealed nuclear cataracts in both eyes. The rest of the anterior segment examination was unremarkable.

Fundus examination revealed subretinal hemorrhage with visualization of retinal vessels in the macular region of the right eye, and a normal fundus in the left eye.

The examination was completed by fluorescein angiography, which showed a sub-retinal hematoma in the macular and peri-papillary region of the right eye. The left eye was normal (figure 1).

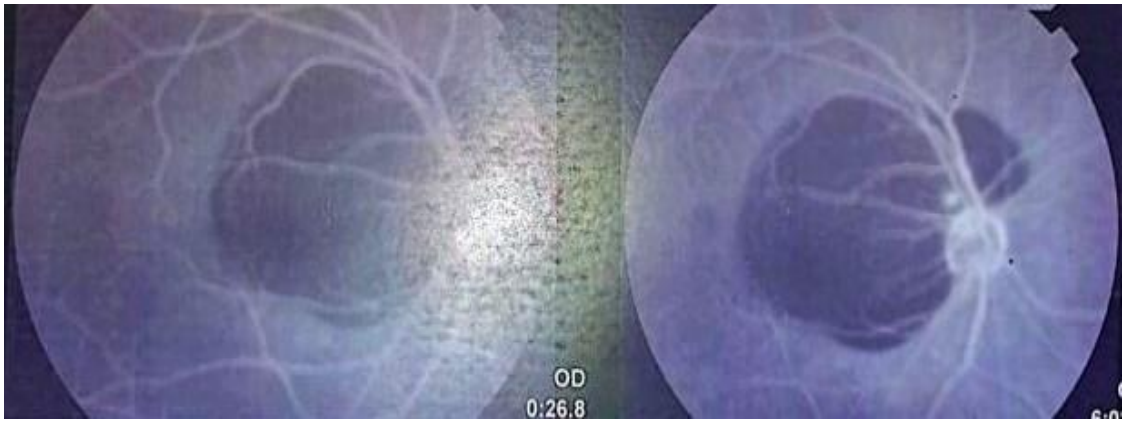

Figure 1: Sub macular hemorrhage demonstrated by autofluorescence

Brain imaging was performed to rule out a cerebral emergency, which returned normal.

Hemostasis exam was normal.

The management consisted of discontinuation of aspirin, a 72-hour bolus of corticosteroids, monitoring, consumption of copious fluids and cardiological investigations.

The evolution was marked by an improvement in visual acuity to 4/10ths and a clean-up at 1 month, followed by the appearance of macular neovascularization treated with anti-VEGF (Figure 2). Given the clinical improvement, surgery was not indicated.

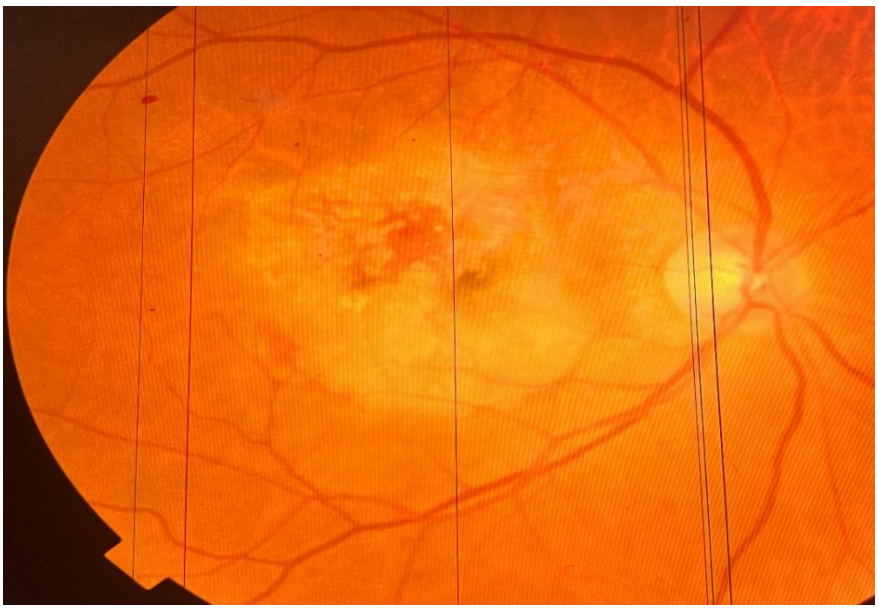

Figure 2: Clearing of hemorrhage with macular reorganization and sequellar neovascularization

DISCUSSION

Sub-retinal haemorrhage is a vascular disorder that threatens the patient's functional prognosis, due to the toxicity of hemoglobin iron to the photoreceptors and pigment epithelium of retina **2**. Diagnosis is most often clinical, with visualization of the hemorrhagic smear on the fundus, revealing the retinal vessels that testify to the sub-retinal location. The main etiologies are traumatic, vascular, inflammatory and age-related macular degeneration [2-5]. The particularity of our study is the drug-induced origin by aspirin, which has not yet been mentioned in the literature, unless we are mistaken.

This is a therapeutic emergency, as the visual prognosis is at stake. Macular location, hematoma volume and evacuation time are prognostic factors that influence visual outcome.

Management is based on surveillance, intravenous corticosteroid therapy, anti-VEGF or surgery. Indications for withholding treatment are: macular hematomas with a single sub-epithelial component or a predominantly sub-epithelial component (regardless of size and location), which are not amenable to surgical treatment; macular hematomas that have been evolving for more than 15 days, as the photoreceptors are altered from the 24th hour onwards and in a major way beyond one week; an extra-foveolar and/or small (less than 1 papillary diameter) and/or flat lesion; a non-functional eye. Treatment with bolus corticosteroids at a dose of 1g per day or anti-VEGFs (following a neovascular origin) is often administered with good results. The latter are alternatives to surgery. Surgical management is based on vitrectomy with gas tamponade to displace the hematoma after injection of fibrinolytics and often anti-VEGF [6-9].

CONCLUSION

Sub-retinal hemorrhage following aspirin administration is a therapeutic emergency, with the patient's visual prognosis at stake within a fortnight of the hemorrhagic event. Appropriate management by qualified personnel can improve the final visual outcome.

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