

# SPONTANEOUS BLEEDING TO VITREOUS CAVITY DURING FLUORESCEIN ANGIOGRAPHY

## SANGRADO ESPONTÁNEO A CAVIDAD VÍTREA DURANTE ANGIOGRAFÍA FLUORESCEÍNICA

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### ABSTRACT

**Case report:** We report a case in which active bleeding from a posterior pole intraretinal microvascular anomaly (IRMA) occurred in a diabetic patient.

**Discussion:** Documentation of active bleeding during the performance of fluorescein angiography is extremely rare. We discuss the origin of the bleeding (*Arch Soc Esp Oftalmol 2007; 82: 763-764*).

**Key words:** Adverse reaction, angiography, diabetic retinopathy, hemorrhage, IRMA, neovascularization.

### RESUMEN

**Caso clínico:** Se presenta un caso de sangrado activo desde una anomalía microvascular intrarretiniana (AMIR) en un paciente diabético.

**Discusión:** La documentación de un sangrado activo durante la realización de una angiografía fluoresceínica es extremadamente infrecuente. Se discute el origen del sangrado.

**Palabras clave:** Angiografía, anomalía microvascular intrarretiniana, hemorragia, neovascularización, retinopatía diabética.

### INTRODUCTION

It is not easy to find documentation about active bleeding during a fluorescein angiography. This paper presents one case of active bleeding from an intraretinal microvascular anomaly (IRMA) in a diabetic patient.

### CASE REPORT

In our practice we studied a 57 year old male patient with a history of diabetes mellitus type two, high blood pressure, and ischemic cardiopathy due

to proliferative diabetic retinopathy. His visual acuity was of 20/50 in the right eye (RE) and 20/25 in the left eye (LE). The patient had been treated previously with panretinophotocoagulation with argon laser in both eyes as well as with pars plana vitrectomy and peeling of internal limiting membrane with intra-vitreous triamcinolone injection in the RE due to a vitreous hemorrhage and chronic diffuse macular edema. No residual neovascular membranes were found in the eyes fundus exploration, but we did identify hemorrhage and microaneurisms in the posterior pole of both eyes. In the left eye we identified some IRMA in the temporal area of the macula.

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Fluorescein angiography was performed using 5 ml of sodium fluorescein at 10%. We also observed ischemic areas and a diffuse macular edema as well as IRMA in the left eye (fig. 1), but we did not find neovascular membranes. In this eye and after eight minutes of the angiogram an active bleeding of the IRMA arose (fig. 2). The eye movement left several traces of blood in the vitreous cavity. The bleeding was short and self-limited without initial symp-

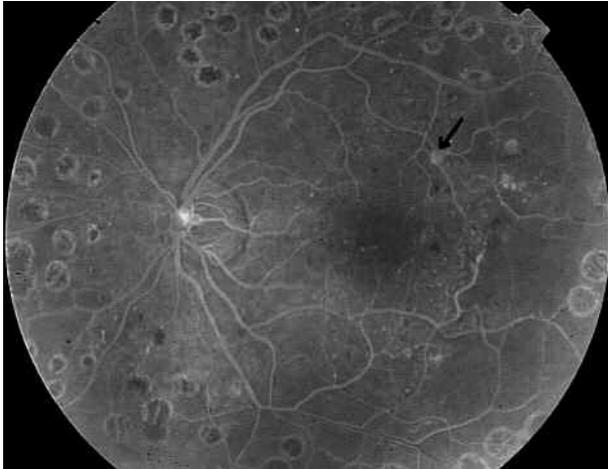


Fig. 1: Left eye angiogram 0.42 minutes. Arrow shows the IRMA.

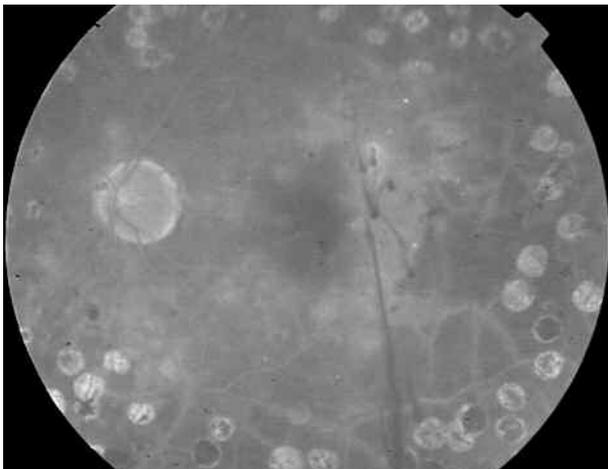


Fig. 2: 8.59 minutes. Blood traces from the IRMA.

toms. Shortly afterwards the patient began to notice miodesopsia. Two weeks later, the vitreous hemorrhage resolved without consequences.

## DISCUSSION

Bleeding during an angiography is infrequent and, as far as we know, has never been documented in a patient with diabetic retinopathy. Territo, Rose and Lindahl (1) described the rupture of a macroaneurism three seconds after the injection of fluorescein, probably due to an increase of pressure after the injection. Another article (2) reported spontaneous bleeding in a disc neovascularization in a patient with myelogenous leukemia caused by a Valsalva maneuver.

In our case there was no increase of venous pressure which could explain the hemorrhage because the bleeding time occurred in minute 8, i.e. too late. On the other hand, we did not observe either any type of Valsalva maneuver by the patient or any new vessel which could have started to bleed after said maneuver due to its fragile nature.

Some authors (3,4) consider that the morphology of IRMA includes characteristics which are generally observed in new vessels and that accordingly IRMAs have a potential for neovascularization.

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