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Letter to the Editor

Retinal Hemorrhage after Infliximab Use

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Infliximab is a chimeric monoclonal antibody against Tumor Necrosis Factor-α (TNF-α), initially developed for treatment of rheumatoid arthritis and inflammatory bowel disease [1,2]. In spondyloarthritis, it is used for treatment of severe and active forms after failure of conventional treatment [2]. A several adverse effects have been observed with the use of infliximab; the main ones include allergic complications during or after the infusion, infections, autoimmune events and lymphoproliferative diseases [3,4]. We report the first case of a retinal hemorrhage after infliximab use for spondyloarthritis.

A 40-year-old woman, with a history of spondyloarthritis associated with crhon's disease for six years, without remarkable review of systems or medical history (no diabetes nor hypertension or glaucoma), she had axial, peripheral and entheseal forms, with bilateral anterior uveitis.

The disease was active (BASDAI = 6.8) and Severe (uveitis, Crohn's disease), hence the treatment with biological agent type Infliximab was indicated.

Laboratory examination prior to infusion was normal; the patient received the first infliximab infusion at a dose of 5mg/kg with monitoring of vital signs (blood pressure, temperature...) without incident. After infusion, the patient reported severe headache, 48 hours later she developed a sudden decrease in visual acuity at the right eye. An eye examination with retinal fluorescein angiography performed in emergency, objective a retinal hemorrhage of the right eye without signs of vasculitis (Figure 1).

Laboratory tests showed negative Anti-Neutrophil Cytoplasmic Antibodies (ANCA), normal blood cell count and biochemestry.

Based on the clinical history and laboratory examinations, retinal hemorrhage was attached to the infliximab infusion.

Remicade was discontinued; 15 days after visual acuity was improved spontaneously and fundoscopic findings showed no retinal hemorrhage.

Retinal hemorrhage is a blood flow located in the retina; theories proposed to explain hemorrhagic retinopathy have focused on retinal microcirculation. Retinal vessels may rupture when the microcirculation is under intolerable pressure due to combination of several factors: retinal vasodilatation in response to hypoxia or hypercarbia, obstruction to venous return as from increased intracranial pressure [5].

Retinal hemorrhages are observed in wide variety of disease such as cystic fibrosis, chronic fibrosis lung disease and migraine headache… [5] our patient didn't have any of these diseases.

Cytopenia, that include thrombocypenia, is a non malignant hematological adverse effect of anti-TNF therapy; [4] it may be involved in the pathogenesis of this hemorrhage, but in our case blood cell count was normal.

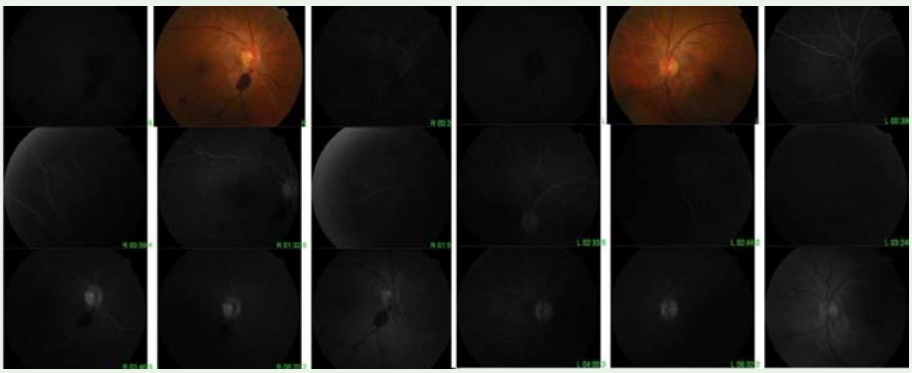

Figure 1: Retinal fluorescein angiography of the eyes, retinal hemorrhage at the right eye while the left eye is normal.

Mild and reversible retinal hemorrhage was reported in patient under Interferon (INF) noted within the 8 weeks of commencement of treatment, it may be dose dependent; its pathogenesis is unclear [6,7]. Several hypotheses are discussed to explain that, an endothelial dysfunction was suggested as cause of interferon-associated retinopathy with increased manifestation within 2 weeks of treatment initiation [7].

Occasionally, treatment with anti-TNF biologicals increased peripheral T cell reactivity to several microbial antigens with a significant increase in the production of interferon [4]. Retinal hemorrhage of our patient may be explained by this theory? Question that we cannot actually answer.

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