Punctate inner choroidopathy in systemic lupus: a case report
Choroidite ponctuée interne au cours du lupus systémique: à propos d'un cas

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Punctate inner choroidopathy (PIC) is an ocular inflammatory disease of unknown etiology. It was first described by Watzke [1] as yellow-white lesions of the inner choroid and retina of the posterior pole without signs of vitritis; occurring in healthy young women with mild myopia. Retinal imaging allowed us a better understanding of the various lesions described in this disease [2]. In fact, it has been demonstrated through multimodal imaging, that the main sites involved in the PIC seem to be the pigmented epithelium layer and the subretinal and retinal external spaces.

Here we report a case of PIC in a woman with confirmed systemic lupus.

A 32 year-old woman was followed for systemic lupus, diagnosed 3 years earlier on positivity of anti ssDNA and anti SM antibodies with suggestive cutaneous and articular manifestations. She was treated by oral steroids for one year with a favorable evolution. She presented with 2 weeks history of unilateral blurred vision of the left eye. Corrected visual acuity was 10/10 in the right eye and 2/10 in the left eye, respectively with (-1, 145°) -3 and (-0.5, 30°) -3.5. Slit-lamp examination was unremarkable with no inflammatory signs in both eyes. Funduscopy showed bilateral scattered small yellowish lesions at the posterior pole, especially in the para foveal region of the left eye (figure 1A). Fluorescein angiography (FA) showed early hyperfluorescence of the described lesions with minim late dye leakage (white arrows in figure 1B), with some hy-

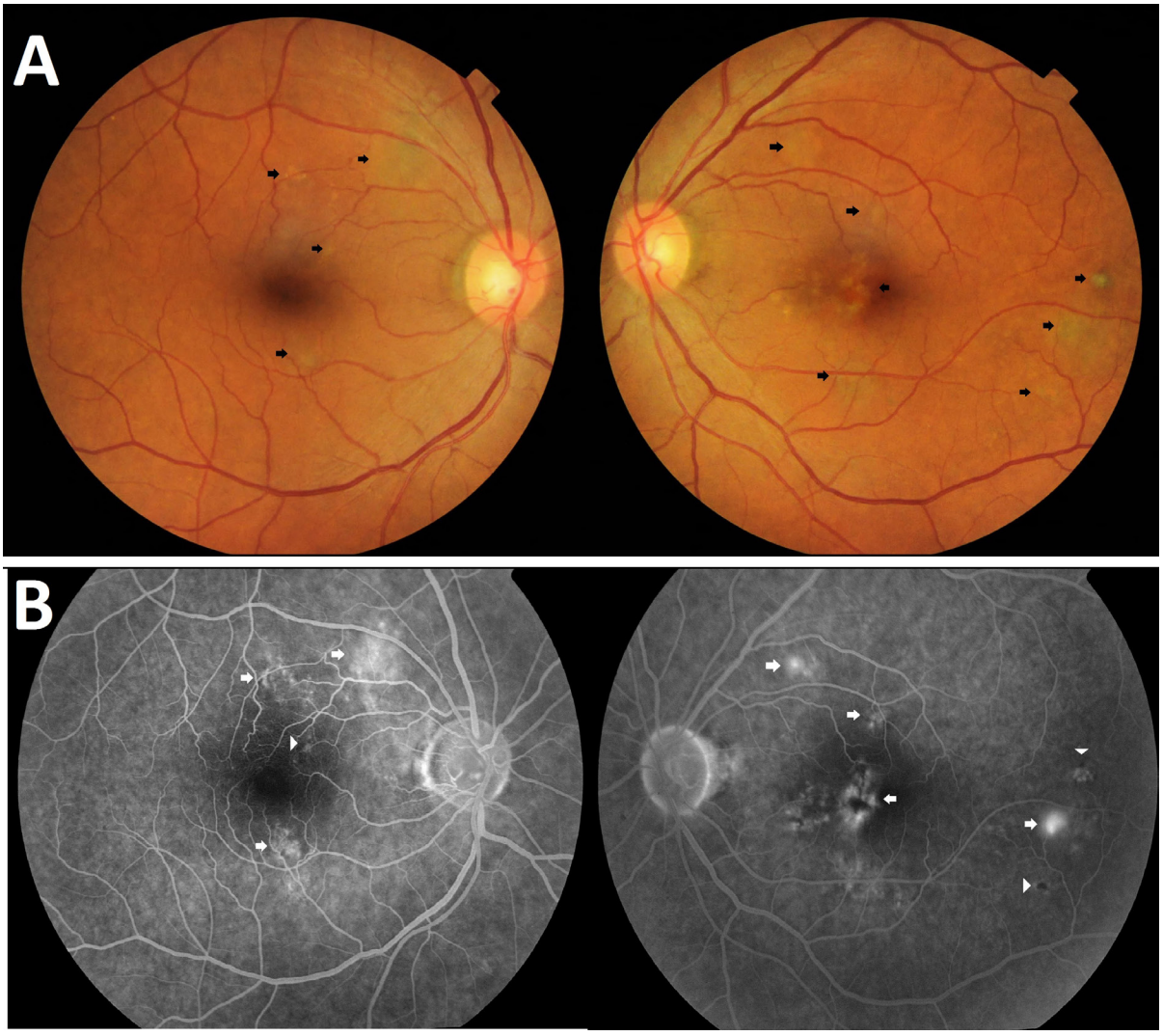

Figure1: Funduscopy and fluorescein angiogram: (A) Funduscopy in both eyes showing disseminated small yellowish lesions at the posterior pole (black arrows). (B) Fluorescein angiography showing early hyperfluorescence of the described lesions with minim late dye leakage in some active lesions (white arrows), and some hypofluorescent spots, corresponding to scars of old inactive lesions (arrowheads).

pofluorescent spots (arrowheads in figure 1B).
A macular OCT was carried out, revealing an aspect of subfoveal choroidal neovascularization in the left eye (figure 2). This

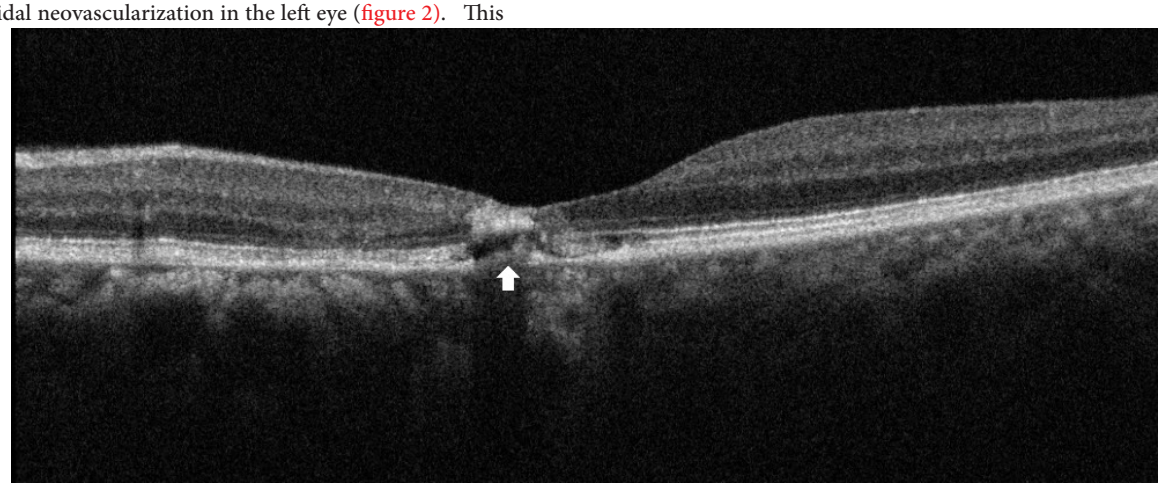

Figure2:
Macular OCT of the left eye confirming the subretinal neovascularization (white arrow).

presentation was consistent with unilateral subfoveal neovascularization complicating a punctate inner choroidopathy in a patient with systemic lupus. A general assessment showed impaired renal function with biological inflammatory syndrome, the patient was then referred to the internal medicine department for a follow up, after receiving an intravitreal injection of bevacizumab leading to a complete regression of the subretinal neovascularization with subsequent improvement of the visual acuity (4/10) that remains stable over a period of 2 years.
Choroidal manifestations of systemic lupus occur infrequently; only few cases have been reported in the literature [3, 4, 5]. These manifestations include particularly choroidal ischemia with subsequent exudative retinal detachment. To the best of our knowledge, punctate inner choroidopathy in systemic lupus has never been reported.
One explanation for the choroidal involvement in systemic lupus, is the extensive deposits of circulating complement complexes in the choriocapillaris and the presence of monoclonal antibodies directed against the retinal pigment epithelium [3, 4], this could possibly explain the clinical features found in our case.
In such cases, a general assessment should be performed, because choroidopathy in systemic lupus may be a signal of subclinical flare of the disease [5].
On the other hand a regular ophthalmological monitoring should be set, given the fact that patients with PIC may develop subretinal neovascularization [6] related to Bruch's membrane breaks. Several therapeutic strategies have been tried to manage this sight threatening complication; with a variable success rate, including intravitreal injection of anti VEGF [7], laser photocoagulation, PDT (photodynamic therapy) [8], surgical removal and oral steroids [9]; other authors reported a complete resolution after treatment with interferon B1A [10]. However, since this condition is rare, there is a lack of evidence in the literature to justify one approach rather than another, even if PDT has been reported to be particularly effective and safe with good long-term outcomes [8,11].

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