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Opinion
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Flying Saucer Appearance: Antimalarial Drug Macular Toxicities

Ahmed Ghazza*, Brahim Madiq, Sarah Belghmaidi, Ibtissam Hajji and Abdeljalil Moutaouakil

Ophthalmology Service Military Hospital Avicenne, Morocco

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***Corresponding author:** Ahmed Ghazza, Ophthalmology Service Military Hospital Avicenne, Marrakech, Morocco

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Opinion

We report the case of a 17-year-old woman followed in dermatology for acute systemic lupus with lupus nephropathy on hydroxy chloroquine for 5½ years. In addition, no ophthalmological assessment was carried out when starting treatment or during follow-up. On admission to ophthalmology, visual acuity was estimated at 6/10 P2 of the 2 eyes, with perception of a pericentral scotoma. The bio-microscopic examination was without particularity. The fundus found a round orange yellow retro foveolar lesion, with alteration of the retinal pigment epithelium giving a rosette appearance of the 2 eyes. Multimodal imaging of the 2 eyes including the first-line assessment including a visual field 10 degrees central objectified a tubular visual field with persistence of a central island. The macular OCT found an alteration of the ellipsoid line with a thinning and disappearance of the external retina in para-foveal giving a so-called "flying saucer" appearance (Figure 1). In second intention, a multifocal electroretinogram was carried out and objectified a significant reduction in the amplitude of the waves N1 P1 and N2 in the 2-15 central degrees. The conduct consisted of stopping synthetic antimalarials after consultation with internists and dermatologists.

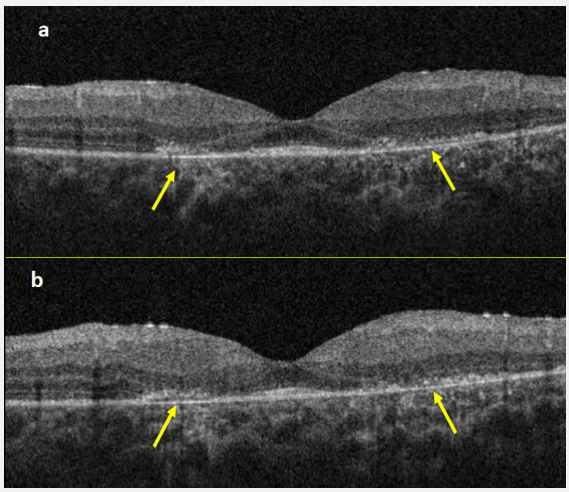

Figure 1: Optical coherence tomography (OCT-SD): Alteration of the internal segments / external segments of photoreceptors line with disappearance of the external retina on either side of the macula (yellow arrows), giving an appearance said in "flying saucer" to the right (a) and left (b) eye.

Discussion

Antimalarials drugs (Hydroxy chloroquine and chloroquine) represent a first-line therapeutic option in the context of many systemic diseases in particular systemic lupus erythematosus (LES) with an excellent benefit /risk ratio, however they can be responsible of toxic retinopathy that can lead to blindness [1]. Recommendations for monitoring treatment at antimalarial drugs were the subject of updates in 2011 and 2016 by the American Academy of Ophthalmology (AAO) [2]. Macular OCT is currently considered a first-line assessment with the central visual field [3]. The initial involvement results in an alteration of the internal segments/external segments of the photoreceptors, without interrupting or modifying the thickness of the external retinal layers [4]. At this stage retinal toxicity is reversible. The disease continues with focal thinning of the external retinal layers on either side of the macula, giving a so-called "flying saucer" appearance and then at the late stage, an atrophy of the retinal pigment epithelium [5].

Conclusion

Early diagnosis of antimalarial drugs retinal toxicities involvement is crucial. The risk of retinal toxicity is no longer considered rare but as a function of the dose and the duration of treatment.

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