**OCULAR QUININE TOXICITY – 2 CASE REPORTS**

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**Introduction:** Bilateral amaurosis is a rare complication of the treatment of *Plasmodium falciparum* malaria with quinine, and can occur with a single therapeutic dose in susceptible individuals. Visual acuity recovery usually occurs, with restricted visual field, but in a few cases amaurosis may be permanent, with optic atrophy.

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**Case 1:**
♂, 35 years-old, healthy to date.
Diagnosed with *Plasmodium falciparum* malaria 5 days after returning from Angola.
Treated with quinine dihydrochloride and doxycycline IV for 9 days.
On the 4th day he had a CRA and coma was induced.
The coma was suspended after six days and he complained of visual acuity decrease.

Clinical Examination:
VA: No light perception.
Pupils fixed and mydriasis.
Remaining neurological examination was normal.
IOP = 13 mmHg
Ocular fundus: pale optic disc heads, generalized arterial narrowing; no retinal edema and no signs of chorioretinitis.

CT and MRI of brain and orbits were normal.
SAP was impossible to perform.

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**Case 2:**
♀, 40 years-old.
Diagnosed with *Plasmodium falciparum* malaria in Angola at age 29.
During treatment with quinine IV complains of sudden bilateral blindness that persisted for about 24 hours. Patient related progressive visual acuity recovery during the first weeks after the treatment.

Clinical Examination:
VA: BCVA OD = 0,50 OS = 0,63
Ocular fundus: - pale optic disc heads; - total hyalinization of the vessels; - collateral vessels in the papillomacular fibres region.

Retinal circulation virtually absent with extensive retinal ischemia. Collateral vessels between optic disc and macula.

Retinal thickness globally decreased that spares only the nasal region between 3 to 6 mm from the fovea in both eyes.

Absence of cortical potentials bilaterally.

Pattern ERG was absent.
Flash ERG compatible with retained photopic function.

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**Conclusion:** The patient in case 1 had no visual acuity recovery and the patient in case 2 recovered her central vision with a residual constricted visual field, which is the most common outcome from quinine toxicity. Visual loss by quinine treatment depends on the knowledge of the location and mechanism of toxicity, which have long been the subject of discussion and controversy, and currently there is no proven and effective therapy for the disease.