Case Report: Retinochoroiditis in patient with Lyme disease followed by PIC (punctat inner chorioretinopathy) with suspicion CNV.

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Abstract: We describe a case of retinochoroiditis in a young patient with Lyme disease with suspicion of development of CNV.

A 30-year-old man presented with painless visual loss of the left eye since a day ago. He was treated with steroid and antibiotics as a case of Lyme disease with ocular manifestation of the disease. The patient has shown improvement. The case was stable for 2 years. Then he came with visual deterioration, and PIC and suspicion of CNV. He was treated accordingly with Avastin as a case of CNV. Then the visual acuity improved and the macula edema was nowhere to be seen.

I. Introduction

Lyme disease (borreliosis) is caused by a spirochaete. The responsible organism, Borrelia burgdorferi, is transmitted through tick bites; deer are important vectors. The disease is endemic in regions of North America, Europe and Asia, but can be difficult to diagnose.

The patient diagnosis and follow up was in unser clinic and in cooperation with the university hospital of Neubrandenburg (Dietrich-Bonhoeffer-Klinikum).

Case Report: A 30-year-old man presented with painless visual loss of the left eye since a day ago.

cc OD 6/6
cc OS 6/15
both anterior chambers were normal without pathological diagnosis.
pupil reaction to light directly and consensually was normal. The media was clear.
CDR 0.5 / 0.3

Fundus examination:
OD: There are no lesions, scars, or pigmentary changes in the macula or periphery. The fovea exhibits a normal foveal light reflex.
OS: Pigment clumping at the macula caudal with vascular caliber fluctuations.
IOP 17 / 14 mmHg
the general physical and neurological examination was without pathological findings.
OCT OD without pathological findings.
OS Subretinal fluid with retinal edema.
FA OD without pathological diagnosis.
OS caudal of the fovea 1.5 DD hyperfluorescence in the late phase.

The diagnosis of borreliosis was confirmed by IgG.

Therapy:
Cortison 100 mg i.v.
Doxycyclin 200 mg

Improvement of the symptoms with cc 6/9 at discharge. The findings were since then stable.

After 2 years the patient came with visual loss OS cc 6/60
in Fundus examination there was two chorioretinal scars with pigment clumping with macula edema. vitreous was clear no signs of uveitis.
OCT OD intraretinal fluid in foveal area.
FA OD increasing hyperflouresce in the late phase.

Therapies:
Cortison 100 mg i.v.
Doxycyclin 200 mg
IVI Bevacizumab (Avastin) under local anesthesia
after having the therapy the patient responded with visual acuity cc 6/12

**Literature Search:** Lyme disease; retinochoroiditis; PIC (punctat inner chorioretinopathy); Intravitreal injection; Avastin.

**II. Discussion**

In 60–80% of cases of Lyme disease, several days after a bite, an annular skin lesion, erythema chronicum migrans forms at the site, often accompanied by constitutional symptoms (stage 1). Neurological (e.g., cranial nerve palsies, meningitis), cardiac (4–8% e.g., arrhythmia) and other manifestations may follow within a few weeks. Late (stage 3) complications include chronic arthritis of large joints, polyneuropathy and encephalopathy. But in the medical history, he didn’t mention neither erythema nor systemic manifestation. And there is also no neuropathy. This time is not a typical presentation. The patient lives at endemic area. This is why we thought at Lyme disease as differential diagnosis. And the diagnosis was established by IgG. The recurrence of the symptoms after 2 years with PIC increased the suspicion of CNV development. The patient was treated accordingly with anti-VEGF, and the response was good.

**References**
