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Clinical Image

Retinal Involvement in SLE: A Hidden Concern

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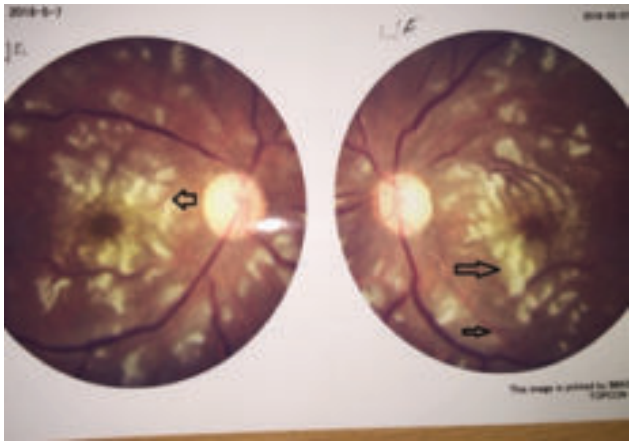
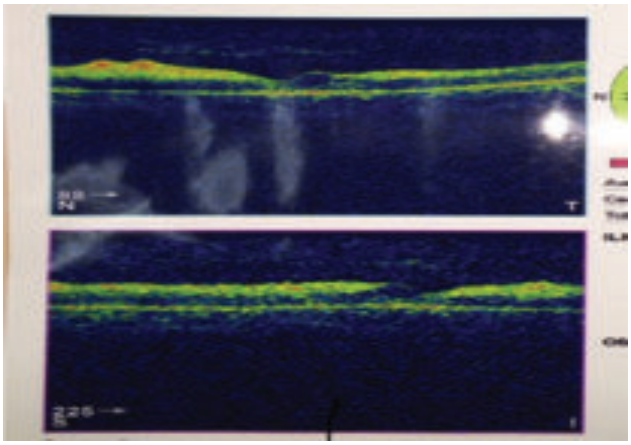
Case 1: A 15-year-old girl presented with pain in multiple small joints of hand, oral ulceration, facial rash and difficulty in vision for last 2 months. She was mildly anaemic, had butterfly rash on face, ulceration on hard palate and arthritis of small joints of hand. Her visual acuity was found to be 6/12 in both eyes. Investigations revealed low Hb, high ESR, normal urine R/E and creatinine with strongly positive ANA & Anti-dsDNA. Surprisingly fundoscopy revealed multiple cotton wool spots in retina, perivascular sheathing around blood vessels with normal optic disc. There after fundal photograph & optical coherence test (OCT) was done. (Figure 1A, 1B)



A) *Fundal Photograph*



B) *OCT of Macula*

Figure 1: *A – revealed multiple cotton wool spots in retina, perivascular sheathing around blood vessels with normal optic disc. B - OCT macula of showing hyper reflective shadow in vitero retinal interphase. Foveal contour is altered due to macular cystic space. Intraretinal space thickening due hyperreflective exudate. RPE choriocapillary complex is normal.*

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Case 2: A 24-year-old female presented with irregular fever, facial rash, oral ulceration for 1 and half months. Examinations revealed only butterfly rash on face, ulceration on hard palate. Investigations revealed normal hemoglobin, high ESR, normal urine R/E and creatinine with strongly positive ANA & Anti-dsDNA. Incidental findings in fundoscopy revealed a cytoid body in her retina. (Figure 2)

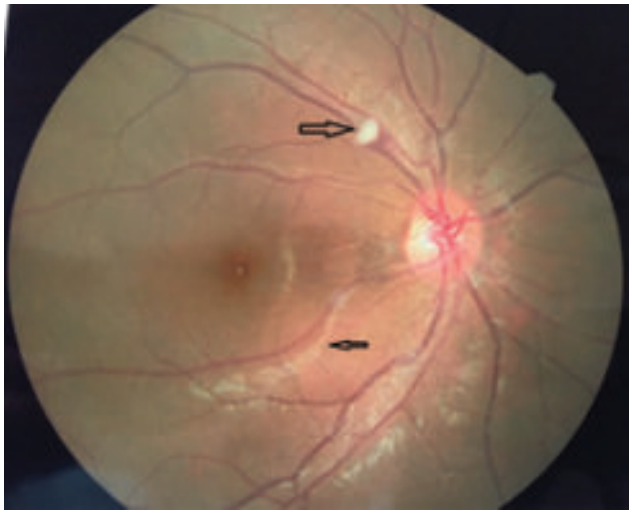

Figure 2: *Single cytoid body (arrow) in retina, perivascular sheathing around blood vessels with normal optic disc.*

Systemic lupus Erythematosus (SLE) is a chronic multisystem autoimmune disease. Ocular complications have been reported in up to one-third of patients with SLE.[1] However, in 10% cases retinal involvement occurs in the form of mild asymptomatic lupus retinopathy to severe blinding disease.[1] The disease may cause ocular involvement by several mechanisms including immune complex deposition in the basement membrane of endothelial cells of the small blood vessels.[1] The most frequent retinal findings include cotton wool spots, retinal hemorrhages, and vascular tortuosity.[2] Other reported posterior segment changes include retinal hard exudates, retinal vasculitis, retinal artery and/or vein occlusion, arteriolar narrowing, arteriovenous crossing changes, macular pigmentary mottling, retinal scarring and macular infarction.[2,3] Lupus choroidopathy and central serous chorioretinopathy have been reported.[4] Screening of retinal disease in SLE include visual acuity testing, slit lamp examination, fundus examination, automated central perimetry (10-2) and fundus photography.[5] However, objective tests include optical coherence tomography of the macula, fundus auto-fluorescence and multifocal ERG.[5] There are several treatment options for lupus retinopathy including systemic steroids, anticoagulants and laser retinal photocoagulation in cases of ischemic retinopathy.

The ocular findings may represent the initial manifestation of the disease and may lead to severe ocular morbidity and loss of vision. Therefore, early diagnosis and prompt management of patients with SLE are mandatory and require collaboration between the ophthalmologist and the rheumatologist.

Conflict of Interest : None

References:

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