ORIGINAL RESEARCH PAPER

Opthalmology

KEY WORDS: SLE, Exudative retinal detachment (ERD), lupus choroidopathy, retinopathy.

SLE PRESENTING AS CHOROIDOPATHY AND HYPERTENSIVE RETINOPATHY WITH EXUDATIVE RETINAL DETACHMENT

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ABSTRACT

Lupus choroidopathy with exudative retinal detachment (RD) is a rare ocular manifestation with few cases reported in the literature. [1] The pathogenesis is multifactorial that includes uncontrolled hypertension [2], immune complex deposition in the choriocapillaris [3] and antiretinal pigment epithelium antibodies [4]. Less than 5% of patients only present with sole ocular involvement at diagnosis. Therefore, commonly in clinical practice, these ophthalmic findings are assigned to SLE in patients with a confirmed diagnosis. We present a case in which choroidopathy with exudative RD (ERD) was the most evident initial manifestation of SLE and have highlighted our clinical approach for the same. Ophthalmic involvement like choroidopathy and retinopathy, is poor prognostic factor with high potential morbidity. For this reason, treatment typically involves a considered assessment of both the systemic and ophthalmic findings in determining the proper therapy and duration of treatment.

CASE REPORT

A 15 year old female child presented to the Ophthalmology Out Patient Department on June 2022 with complaint of diminution of vision in both eye since 1 week. There was no history of ocular trauma, surgery or foreign body exposure. Also there was no history of any chronic systemic illness. Her physical examination revealed raised blood pressure of 150/90 mm of Hg, generalized fatigue, swelling over both upper and lower limb and brown papules on both leg. Her visual acuity was counting finger close to face in both eye and anterior segment was unremarkable. Dilated fundus examination of both eye showed vertically oval optic disc cup, 0.3 CDR with blurred disc margin and edema, blood vessels were tortuous, sheathing pattern with A:Vratio 2:3. Both eye had Exudative retinal detachment and hypopigmented choroiditis patches with deep haemorrhages present in nasal quadrant of left eye.

Blood investigations showed raised white blood cells (18000/mm3), raised AST (1277U/L) and ALT (244U/L). Renal function was also deranged with elevated serum urea (132mg/dL) and serum creatinine level (6.90mg/dl). Coagulation profile showed raised prothrombin time and INR. Complement 3 and 4 were also reduced. She was positive for Anti-nuclear Antibody and Anti-ds DNA Antibody.

She was diagnosed with SLE induced nephropathy and nephrology referral was done. The patient was admitted and managed conservatively with Inj. Methylprednisolone 1gm i/v for 3 days followed by oral steroids in tapering dose. Also she was administered Inj. Rituximab 1gm i/v, Inj. Ceftriaxone 500mg i/v twice daily, Inj.Metronidazole 100 ml i/v thrice daily, Inj. Furosemide 10mg thrice daily and Inj. Pantoprazole 40mg once daily.

On follow up after 6 weeks her visual acuity of RE improved to 6/6 and of LE was counting finger at 2 meter. Fundus examination of RE revealed temporal disc margin blurring with shallow exudative RD while LE had disc edema, exudative RD in macular area, hypopigmented choroiditis patches and haemorrhages as before.

Figure 1 : Brown papules and edema in lower limbs

Figure 2: RE FUNDUS IMAGE (on follow up)- shallow Exudative RD with choroidal patches

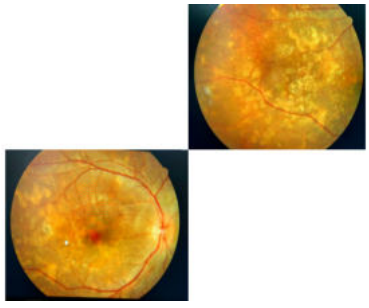

Figure 3:RE B-SCAN(on follow up)-shallow Exudative RD

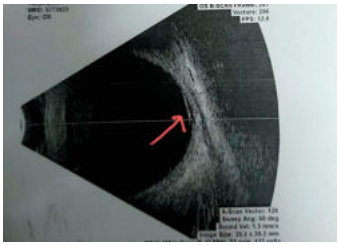

Figure 4: LE FUNDUS IMAGE & B-SCAN (on follow up) - showing Exudative RD

DISCUSSION

SLE involve various ocular structure, but retina and choroidal involvement are vision threatening. Lupus choroidopathy is a rare ocular manifestation of SLE that has been reported in no more than 60 patients upto 2019. [5] Lupus choroidopathy is also associated with lupus nephritis because of the similar structure and pathogenesis of both the kidney and the choroid. [6] Yao et al. reported that lupus nephritis was the

most prominent comorbidity of lupus choroidopathy, occuring in approximately 78.6% of all patients. [5] In Lupus nephritis, systemic hypertension is usually observed and exacerbates lupus choroidopathy because it contributes choroidal vessel occlusion, which promotes choroidal ischaemia and destruction of blood retinal barrier at the RPE. The present patient has combined involvement.

Suspected pathogenesis may be due to microangiopathy caused by mononuclear inflammatory infiltrate of choroid, immunoglobulin and complement deposition in the choroidal blood vessels and damage to the overlying RPE. ERD is also thought to be associated with anti RPE antibodies.

The treatment of lupus choroidopathy includes systemic corticosteroids, immunosuppressive drugs and biological agents that control the systemic activity of SLE through immunosuppression. Because it develops in acute phase of SLE, the goal of treating lupus choroidopathy is to modulate SLE activity.
The present case is notable because Lupus choroidopathy with serous retinal detachment is the early manifestation of SLE that caused visual loss and required extensive investigation. It is an indicator of severity and the patient may present poor ocular and systemic prognosis if not correctly treated.

CONCLUSION

In rare cases, ophthalmic involvement is the initial manifestation in SLE. Early recognition, prompt assessment and coordinated treatment strategies are key to reduce ocular morbidity. Very few cases gain full vision with disc involvement.

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