

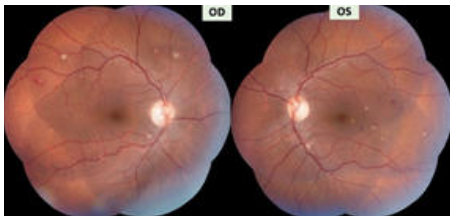


ORIGINAL RESEARCH PAPER	Ophthalmology
FOCAL CHORIORETINITIS IN A CASE OF BACTERIAL ENDOCARDITIS	KEY WORDS: Infective Endocarditis, Focal chorioretinitis, Endogenous endophthalmitis, Ocular manifestations, Bacterial Endocarditis, Spectral-Domain Optical Coherence Tomography , Roth spots , Intravitreal antibiotics

Dr. Paruchuri Harshita*	IOL Fellow, Shankara Eye Hospital, Krishnankoil, Tamil Nadu *Corresponding Author
Dr. N. Sudha	CMO, Sankara Eye Hospital, Krishnankoil, Tamilnadu
Dr. Paruchuri Akshay	Junior Resident

ABSTRACT	Bacterial endocarditis is a multisystemic condition that can rarely present with ocular involvement. We report the case of a 35-year-old male who developed focal chorioretinitis as a complication of infective endocarditis. The case highlights the importance of comprehensive ophthalmologic evaluation in patients with systemic infections. Prompt diagnosis and targeted antimicrobial therapy led to substantial clinical improvement. This report aims to raise awareness about such rare presentations and the need for interdisciplinary collaboration.
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INTRODUCTION Infective endocarditis (IE) is a complex systemic disease predominantly affecting the endocardial surfaces of the heart. Ocular complications, although uncommon, can arise due to hematogenous spread of septic emboli. These manifestations are often nonspecific and may be overlooked, emphasizing the need for routine eye examinations in at-risk patients. Chorioretinitis secondary to IE is rarely encountered, and its diagnosis requires a high degree of clinical suspicion, especially in febrile individuals with visual symptoms.	A diagnosis of focal chorioretinitis secondary to infective endocarditis was made based on systemic and ocular findings. The patient was initiated on intravenous antibiotics (Ceftriaxone and Vancomycin), antipyretics, and supportive measures by the medical team.
Case Study A 35-year-old male presented to the Department of General Medicine with a history of persistent fever for 15 days. On referral to the Ophthalmology Department, funduscopy revealed multiple discoid chorioretinal lesions and Roth's spots in both eyes.	Topical Therapy Prescribed Included: • Prednisolone 1% eye drops every 2 hours • Moxifloxacin 0.5% eye drops every 3 hours • Homatropine 2% once at bedtime Clinical improvement was noted, with resolution of fever and stabilization of systemic condition. Repeat funduscopy after six weeks demonstrated significant reduction in chorioretinal lesions and resolution of Roth's spots.



Picture 1 - Fundus photos demonstrating Multiple Discoid Chorioretinal Foci and Roth's spots

Spectral-domain Optical Coherence Tomography (SD-OCT) Findings Included: • Right Eye (OD): Hyper-reflective intraretinal lesions with disruption of the retinal pigment epithelium (RPE). • Left Eye (OS): Hyper-reflective material in the suprachoroidal space, leading to pigment epithelial detachment and breach into the sensory retina. OD SD-OCT showing hyper-reflective lesions in inner retinal layers and defects in RPE	OS SD-OCT showing hyper-reflective vegetation in the suprachoroidal area causing pigment epithelial detachment, which spread through the retinal pigment epithelium into the sensory retina
DISCUSSION Endogenous endophthalmitis accounts for approximately 2–8% of all intraocular infections, with bilateral involvement reported in 15–25% of cases. The immune-privileged status of the intraocular environment fosters microbial proliferation and delays host response.	There are currently no universally accepted treatment guidelines for endogenous endophthalmitis. While pars plana vitrectomy with intravitreal antibiotics is favored by some experts, early surgical intervention has not consistently improved outcomes in cases involving virulent organisms like <i>Streptococcus pneumoniae</i> . Intravitreal injections of Vancomycin (1.0 mg/0.1 mL) and Ceftriaxone (2.2 mg/0.1 mL) are recommended for broad-spectrum coverage.
CONCLUSIONS This case illustrates the rare but serious ocular sequelae of	Topical and systemic antibiotics can provide adjunctive benefit. Among fourth-generation fluoroquinolones, moxifloxacin has demonstrated superior ocular penetration and efficacy in experimental models.

bacterial endocarditis. Early ophthalmologic assessment and prompt initiation of systemic and topical therapy can significantly improve patient outcomes. Interdisciplinary management remains crucial in addressing such multisystemic presentations.

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