

ACUTE LYMPHOBLASTIC LEUKEMIA PRESENTING AS UNILATERAL LEOPARD SPOTS EXUDATIVE RETINOPATHY

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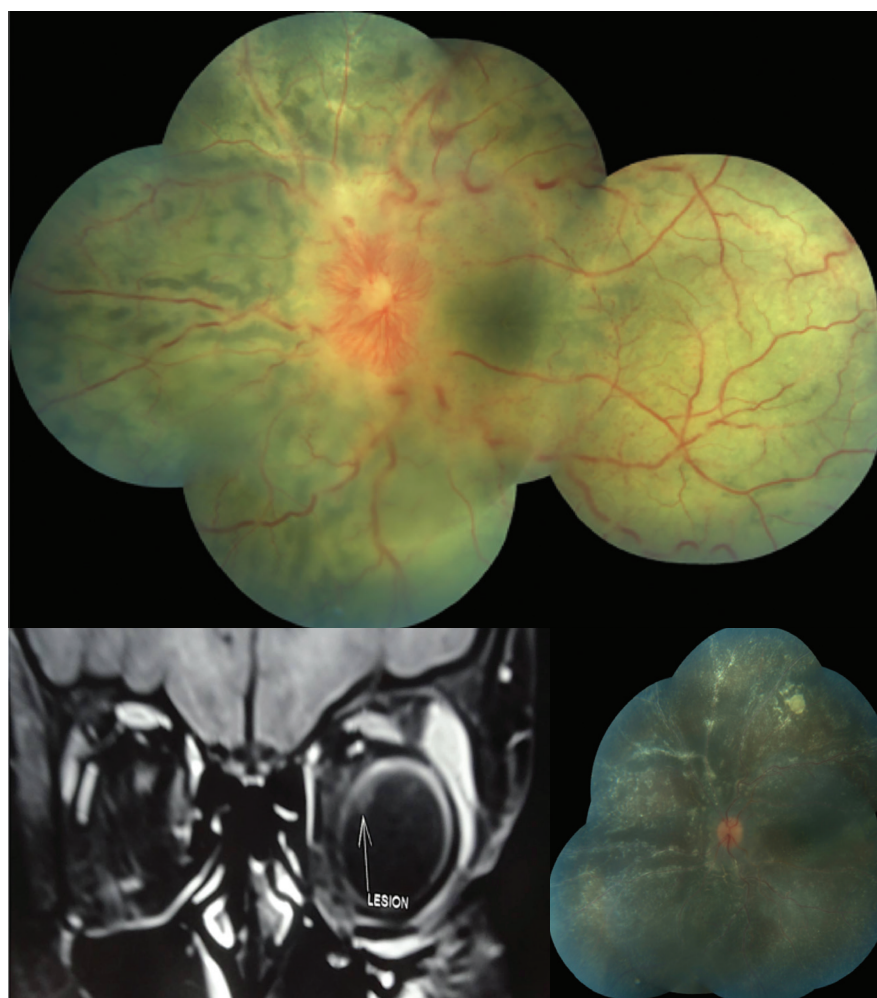
An 11-year-old girl presented with dimness of vision in the left eye (OS) for 1 week. Her medical history included B-cell acute lymphocytic leukemia (B-ALL) diagnosed 2 years earlier. Immunohistochemistry had identified the tumor as common-ALL associated antigen positive, also called *CALLA*+. The patient underwent chemotherapy and cranial radiotherapy (CRT) at that time. On presentation at our center, the patient had no headache, fever, or nausea, and she was on monthly maintenance chemotherapy.

On examination, her VA was 20/20, N6 in the right eye and hand motion+, N36 OS. Extraocular movement was normal, the anterior chamber was unremarkable, and IOP was normal. Fundus examination revealed leopard spots exudative retinal detachment (ERD) with florid vessels prominent at the optic disc OS (top Image). B-scan ultrasound OS revealed multiple ERDs with an increase in choroidal thickness of 2 mm and low reflective echoes in the vitreous cavity. OCT OS showed gross thickening of the retinochoroidal complex. An MRI scan of the brain and orbit revealed an intraocular leukemic deposit OS (bottom left). Brain MRI and peripheral blood smear were normal.

The patient was advised to consult the radiation oncologist for possible

further CRT. Her parents were also advised to consult the treating oncologist with the new metastatic findings OS.

At 6-week follow-up, the patient's VA had improved to 20/20 OS, fundus findings OS were improved
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(bottom right), and the disease was in remission. Mild phthisical change was noted OS.

Ophthalmic manifestations of ALL can vary.¹⁻⁴ Findings in the posterior segment in patients with ALL include retinal hemorrhages with Roth spots, vascular sheathing, cotton wool spots, optic disc edema, and ERD.²⁻⁴ ■

1. Ohkoshi K, Tsiaras WG. Prognostic importance of ophthalmic manifestations in childhood leukaemia. *Br J Ophthalmol*. 1992;76:651-655.
2. Primack JD, Smith ME, Tychsen L. Retinal detachment in a child as the first sign of leukemic relapse: Histopathology, MRI findings, treatment, and tumor-free follow up. *J Pediatr Ophthalmol Strabismus*. 1995;32:253-256.
3. Rosenthal AR. Ocular manifestations of leukemia: a review. *Ophthalmology*. 1983;90:899-905.
4. Sharma T, Grewal J, Gupta S, Murray PI. Ophthalmic manifestations of acute leukaemias: the ophthalmologist's role. *Eye (Lond)*. 2004;18:663-672.

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