# Relapse of acute lymphoblastic leukemia presenting as masquerade uveitis with hypopyon in a child

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**Key words:** Acute lymphoblastic leukemia, ALL, hypopyon uveitis, masquerade uveitis

A 5-year-old female child presented with acute onset redness and decreased vision in the left eye for the past 5 days. There was no history of trauma. The child was a diagnosed case of acute lymphoblastic leukemia (ALL) WHO stage L2 and had received chemotherapy 2 years back, according to the Berlin-Frankfurt-Munster regimen.[1] The child had achieved remission from chemotherapy. Currently, the visual acuity was 20/20 in the right eye (OD) and 20/200 in the left eye (OS) while intraocular pressures (Perkin tonometer) were 10 and 26 mmHg, respectively. The anterior as well as posterior segment examinations were normal in OD. Diffuse conjunctival and ciliary congestion was noted in OS; the anterior segment showed 2 mm white-colored hypopyon [Fig. 1a] and the reaction of 3+ (SUN classification). The posterior segment view was hazy with only the optic disk visible. Topical anti-glaucoma drops were prescribed for OS. Keeping in mind the relapse of ALL, a pediatric oncologist was consulted and magnetic resonance imaging (MRI) of the orbits of brain was requested. The MRI scan showed leukemic deposits in the iris/ciliary body complex [Fig. 1b] but no intracranial deposits. An aqueous tap was also performed for OS, which revealed the presence of atypical lymphoblast cells. The child was thoroughly evaluated systemically and a bone marrow biopsy revealed 97% lymphoblasts. Re-induction therapy was started, while for ocular relapse, the patient received external beam radiotherapy treatment (20 Gy). Bone marrow transplantation has been planned for systemic relapse. Post-radiotherapy, ocular examination showed resolution of hypopyon but posterior synechiae were observed [Fig. 1c] while a repeat MRI scan showed normal iris/ciliary body complex [Fig. 1d].

## Discussion

The suspicion of masquerade syndrome should always be kept in mind when pediatric hypopyon uveitis is encountered. ALL is the most frequent malignancy in children but anterior segment infiltration is rare, accounting for 0.5-2.5% of relapse cases.[2] Relapse of ALL in children presenting as hypopyon has been described in a few case reports.[2-4] Direct infiltration through posterior ciliary vessels could be a probable cause.[5]

Access this article online

Quick Response Code:

Website: www.ijo.in

DOI: 10.4103/ijo.IJO_921_22

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Received: 10-Apr-2022 Revision: 09-May-2022
Accepted: 12-May-2022 Published: 30-Jun-2022



**Cite this article as:** Rehman O, Das D, Magdalene D, Bhattacharjee K, Deka D, Singh S, *et al.* Relapse of acute lymphoblastic leukemia presenting as masquerade uveitis with hypopyon in a child. Indian J Ophthalmol 2022;70:2732-3.

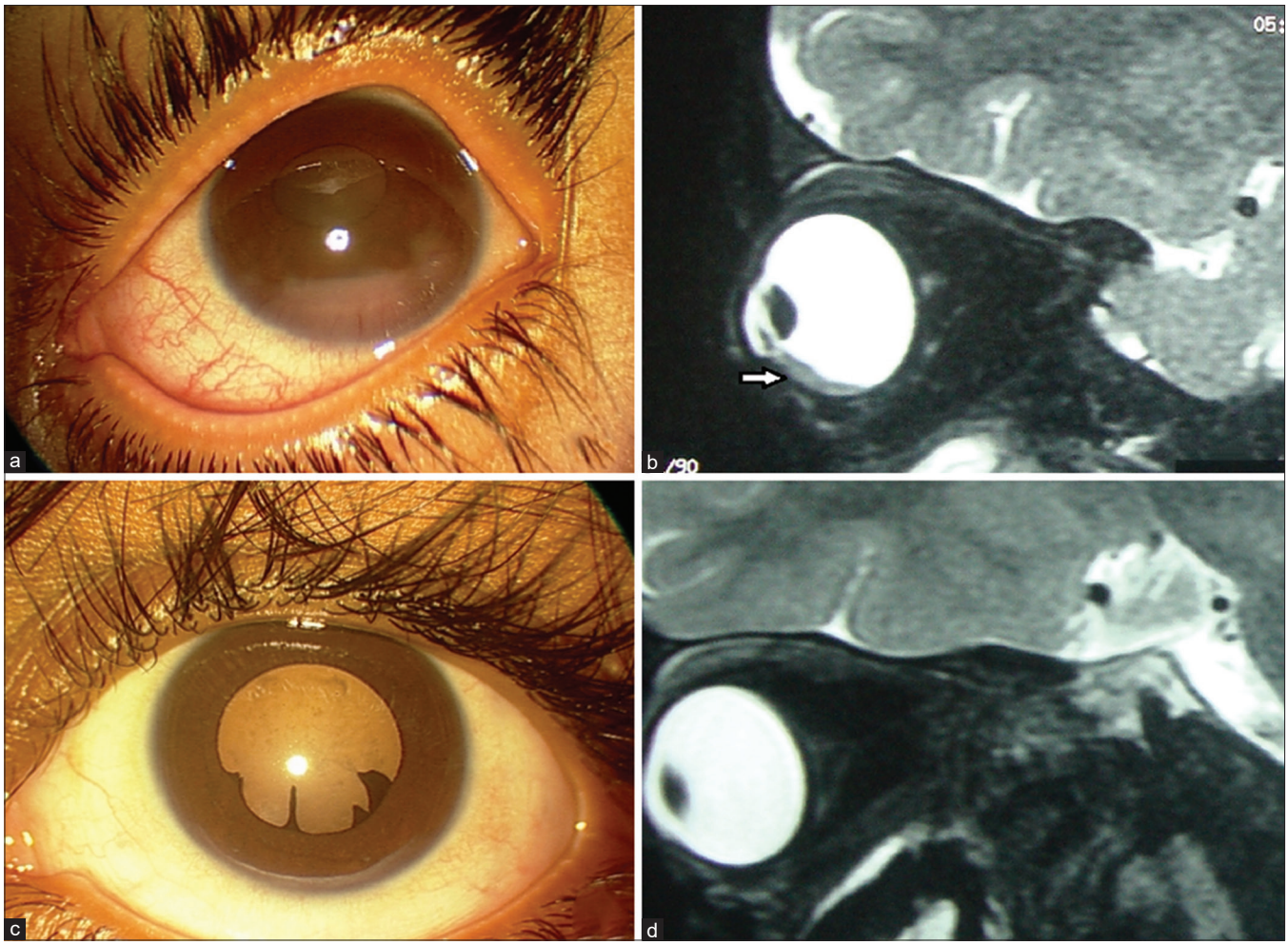


**Figure 1:** (a) – Slit-lamp photograph showing 2 mm white-colored hypopyon; (b) – T2w sagittal MRI scan showing leukemic deposits in the iris-ciliary body complex (white arrow); (c) – post-radiotherapy slit-lamp photograph showing resolution of hypopyon and presence of posterior synechiae; (d) – post-radiotherapy T2w sagittal MRI scan showing normal iris-ciliary body complex

### Acknowledgments

Sri Kanchi Sankara Health and Educational Foundation.

### Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

### Financial support and sponsorship

Nil.

### Conflicts of interest

There are no conflicts of interest.

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