

A Head-Tilt Test for Hypopyon After Intravitreal Triamcinolone

A hypopyon is an ominous sign that suggests infectious endophthalmitis.¹ Sterile hypopyon and inflammation can occur after an intravitreal injection of triamcinolone acetonide, especially in patients with a history of uveitis. Infectious endophthalmitis requires emergency treatment whereas sterile hypopyon resolves without treatment.^{2,3} Therefore, clinicians must distinguish between a hypopyon due to infectious endophthalmitis and a sterile hypopyon after the injection of triamcinolone acetonide.

Case Report

A 38-year woman with a history of pars planitis underwent uncomplicated cataract extraction in her left eye with placement of a posterior chamber intraocular lens and an intravitreal injection of 4 mg of triamcinolone. Five days after surgery, she returned with decreased vision but no pain. Her acuity had decreased from 20/40 to 20/70. Her intraocular pressure was 18 mmHg. There was no lid edema and minimal conjunctival injection. The cornea was mildly edematous. The anterior chamber showed numerous white particles and a 1.5-mm hypopyon. There were vitreous particles, a red reflex, and no retinal hemorrhages. Echography showed large, high-reflective particles.

We performed a “head-tilt test” and the hypopyon shifted readily to the lowest point of the anterior chamber (Figure 1, A and B) The hypopyon resolved without treatment. We have followed four other patients with sterile hypopyons after injections of triamcinolone acetonide. All shifted with head tilt and resolved with observation only. Hypopyons due to infections do not shift significantly, even after several minutes of head tilt (Figure 2, A and B).

Comment

The head-tilt test for a shifting hypopyon helps differentiate patients with sterile inflammation from

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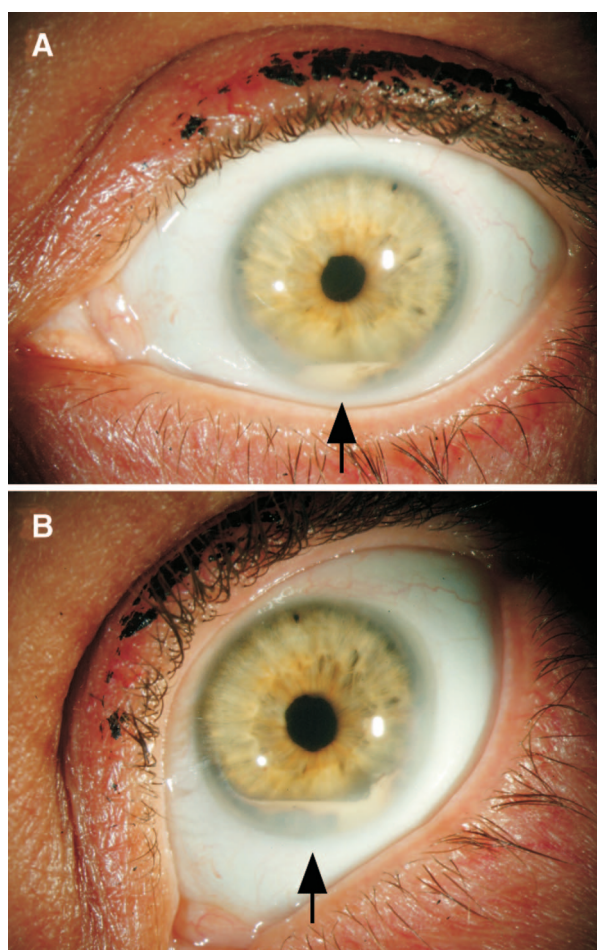


Fig. 1. Head-tilt test in noninfectious hypopyon. A sterile hypopyon (A) after the injection of triamcinolone acetonide shifts rapidly with head tilt (B).

those with infectious endophthalmitis. Unlike sterile hypopyons, infectious hypopyons contain fibrin that consolidates cellular components and prevents or delays its shift with a head-tilt. A head-tilt test can help

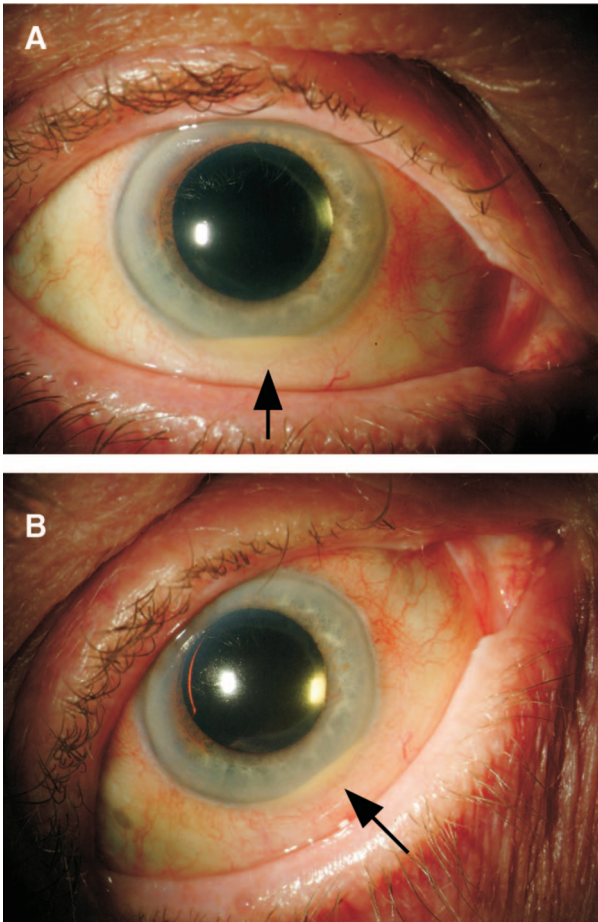


Fig. 2. Head-tilt test with infectious hypopyon. A hypopyon (A) in infectious endophthalmitis barely shifts after more than 6 minutes of head tilt (B).

a clinician determine whether a hypopyon is due to an infection or not.

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