Bilateral acute iris transillumination (BAIT) initially misdiagnosed as acute iridocyclitis

Transiluminação de íris aguda bilateral (BAIT) inicialmente diagnosticada como iridociclite aguda

ABSTRACT
Bilateral acute iris transillumination (BAIT) is a very rare clinical entity characterized by bilateral acute loss of iris pigment epithelium, iris transillumination, pigment dispersion in the anterior chamber, and sphincter paralysis. We report the case of a 30-year-old man who was initially diagnosed with acute iridocyclitis in a different clinic and treated with topical and systemic corticosteroids. He was referred to our clinic to seek another opinion because his symptoms did not improve. An ocular examination revealed bilateral pigment dispersion into the anterior chamber, diffuse iris transillumination, pigment dusting on the anterior lens capsule, tonic and distorted pupils, and increased intraocular pressure, suggesting a diagnosis of BAIT rather than iridocyclitis. Clinicians should be aware of the differential diagnosis of syndromes associated with pigment dispersion from iridocyclitis to avoid aggressive anti-inflammatory therapy and detailed investigation for uveitis.

Keywords: Iris diseases/diagnosis; Pigment epithelium of eye/pathology; Transillumination, Iridocyclitis/diagnosis; Diagnosis, differential; Case reports

RESUMO
A transiluminação de íris aguda bilateral (do inglês, bilateral acute iris transillumination, BAIT) é uma entidade clínica relativamente nova, caracterizada pela perda aguda bilateral do epitélio pigmentado da íris, transiluminação iriana, dispersão de pigmentos na câmara anterior, e paralisia do esfíncter pupilar. Nós relatamos o caso de um homem de 30 anos que foi diagnosticado com iridociclite aguda e tratado com corticosteroides tópicos e sistêmicos. Ele foi encaminhado ao nosso serviço para outra opinião, porque seus sintomas não melhoraram com a terapia. Um exame oftalmológico revelou dispersão bilateral de pigmentos para a câmara anterior, transiluminação difusa de íris, pigmento difuso na cápsula anterior do cristalino, pupilas atônicas e distorcidas, e um aumento da pressão intraocular, o que sugere um diagnóstico de BAIT em vez de iridociclite. Os médicos devem estar cientes do diagnóstico diferencial das síndromes associadas à dispersão de pigmento com a iridociclite para evitar a terapia antiinflamatória agressiva e investigação detalhada para uveíte.

Descritores: Doenças da íris/diagnóstico; Epitélio pigmentadoocular/patologia; Transiluminação, Iridociclite/diagnóstico; Diagnóstico diferencial; Relatos de casos

INTRODUCTION
Bilateral acute iris transillumination (BAIT) is a very rare condition characterized by the bilateral acute loss of iris pigment epithelium, iris transillumination, pigment showering, persistent mydriasis, and occasional increased intraocular pressure (IOP)\(^1,2\). Patients with BAIT generally present with acute ocular pain, photophobia, and red eyes\(^1,2\), which are also observed in patients with iridocyclitis. Furthermore, the circulating pigment particles in the anterior chamber may be confused with the inflammatory cells seen in patients with iridocyclitis. Therefore, the presenting symptoms and findings of BAIT may result in a misdiagnosis of acute iridocyclitis. We report a case of BAIT in a patient who was initially misdiagnosed with iridocyclitis and treated with corticosteroid therapy.

CASE REPORT
A 30-year-old male was referred to our clinic to seek another opinion for his diagnosed iridocyclitis, which was unresponsive to treatment. Two months previously, he had been admitted to another clinic with acute bilateral ocular pain, severe photophobia, and red eyes. He was diagnosed with iridocyclitis and treated with topical and systemic corticosteroids. However, his signs and symptoms did not improve. The patient also had a history of upper respiratory tract infection and use of the systemic cefazolin 3 months previously. On admission, his best-corrected visual acuity was 20/20 in both eyes. Slit-lamp examination revealed bilateral conjunctival hyperemia, 1+ circulating pigment in the anterior chamber, diffuse iris transillumination, pigment dusting on the anterior lens capsule, and mydriatic and distorted pupils (Figures 1 A, B and 2 A, B). There was no evidence of posterior iris bowing or peripheral anterior synechiae on the gonioscopy. IOP was 20 mmHg in the right eye and 18 mmHg in the right eye. The fundus examination was normal in both eyes. The patient had undergone a complete laboratory evaluation for uveitis in the other clinic. The results of those tests, including erythrocyte sedimentation rate, complete blood cell count, biochemistry, urinalysis, venereal disease research laboratory test, intradermal purified protein derivative test, and computed tomography of the chest, were normal. Human leukocyte antigen-BS1 (HLA-BS1) and HLA-B27 were negative.

On admission to our clinic, the patient was using topical prednisolone acetate 1% 8 times a day, topical cyclopentolate 1% twice a day, and a fixed carbonic anhydrase inhibitor/beta blocker combination. The cyclopentolate was discontinued, and the prednisolone was...
inferior trabecular meshwork pigmentation. Anterior lens capsule. Gonioscopy of right (C) and left (D) inferior angles showing heavy tad pupils with poor response to light, and a small amount of pigment dusting on the corneal endothelium but had all of the clinical findings of BADI. The features that differentiate BADI from BAIT are depigmentation of the iris without transillumination defect and unaffected pupils.

BAIT may also masquerade as iridocyclitis, as in the case of our patient, who was referred for evaluation of bilateral acute iridocyclitis. On our initial examination, he had no inflammatory keratic precipitates on the corneal endothelium but had all of the clinical findings of BAIT. Therefore, we ruled out acute iridocyclitis.

Although the exact etiopathogenesis of BAIT remains unclear, several publications have reported a relationship between BAIT and systemic use of moxifloxacin and clarithromycin, upper respiratory tract infections, and a toxic effect following fumigation. Our patient had a history of upper respiratory tract infection and use of systemic cefazolin 3 weeks before the onset of his symptoms. It is difficult to establish which of those factors was the cause of BAIT. Tugal-Tutkun et al. reported 26 patients with BAIT, 19 of whom had a history of upper respiratory tract infection and use of systemic antibiotics, including moxifloxacin, ampicillin/sulbactam, amoxicillin/clavulanate, trimethoprim/sulfamethoxazole, cefixime, and penicillin V. However, they concluded that the relationship between BAIT and systemic antibiotic use was coincidental, because there are no reported ocular adverse effects related to the topical use of these antibiotics, in particular moxifloxacin, which has efficient ocular penetration. We use moxifloxacin in the anterior chamber for prophylaxis of endophthalmitis after cataract surgery, and we have not encountered any cases of BAIT associated with its use. Therefore, it appears that BAIT in the present case was triggered by the virus that caused the upper respiratory tract infection.

In conclusion, BAIT should be differentiated from other diseases causing pigment dispersion into the anterior chamber and from iridocyclitis. It is important to make a correct differential diagnosis of BAIT from anterior uveitis to avoid the unnecessary use of corticosteroids and detailed investigation for uveitis.

REFERENCES


