

INTESTINAL RESEARCH

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# The optimal time to perform an ophthalmic examination of patients with inflammatory bowel disease

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Some ophthalmic manifestations are more prevalent in IBD patients compared to general population. We recently finished a critical literature review of ocular involvement in IBD, and found a gap in the literature regarding the optimal time to perform an ophthalmic examination as part of multidisciplinary procedures in the management of IBD patients.

Because ophthalmic manifestations have variable outcomes and prognoses that can be sight-threatening, detection of ocular involvement can reduce disease morbidity. Patient referral for an ocular symptom or red eye is not sufficient, because serious ophthalmic conditions such as glaucoma can occur without symptoms.

The immune-mediated ophthalmic manifestations of IBD are characterized mainly by uveitis, episcleritis, and scleritis, and there are conflicting data regarding their relationships with clinical demographic characteristics. The different methodologies, different populations studied, and different numbers of patients enrolled make the interpretation of these data challenging. However, it is a common finding that females with CD are more affected and require special attention. It was also described others ophthalmic manifestations, such as tear film dysfunction (TFD) being more prevalent in IBD patients when compared to controls (57.4% vs. 21.3%, P=0.002).

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Different ocular manifestations can be related to specific treatments for IBD, which involve the use of corticosteroids, that independently of their dosages or administration routes can lead to cataract or glaucoma. The relationship of the use of 5-aminosalicylic acid derivatives, with TFD remains unclear, because IBD is a common and a complex multifactorial disease. Biological agents (infliximab and adalimumab) have ocular side effects with variable prognoses, which include uveitis and optic neuritis. Uveitis resolves after drug withdrawal with no sequelae, and optic neuritis is sight-threatening if not promptly recognized and treated.

IBD patients with diabetes or systemic arterial hypertension must be evaluated to detect retinopathy that can lead to visual impairment. In addition, patients with malabsorption syndromes and vitamin A deficiency are at risk of ocular surface diseases and nictalopia.

We performed ophthalmic examinations of 80 IBD patients and 160 healthy controls at the Federal University Hospital Clementino Fraga Filho, Rio de Janeiro, Brazil. Posterior subcapsular cataract was more prevalent in the IBD group when compared with the control group (7.5% vs. 1.3%, P=0.018; OR, 6.405; 95% CI, 1.26–32.49).

Therefore, it seems reasonable to use a baseline ophthalmic examination to detect preexisting ocular conditions. A routine annual checkup, mainly in patients using steroids, and an examination previous to any modification in IBD therapy are recommended, because it can lead to adverse ophthalmic side effects. Finally, an ophthalmic examination of IBD patients with malabsorption syndromes or ocular signs or symptoms such

as ocular pain and sudden vision loss is also recommended.

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# **CONFLICT OF INTEREST**

No potential conflict of interest relevant to this article was reported.

## **AUTHOR CONTRIBUTION**

Conceptualization: Zaltman C. Methodology: Biancardi AL, Troncoso LL, de Moraes HV Jr, and Zaltman C. Formal analysis: Zaltman C. Project administration: Biancardi AL. Visualization: Biancardi AL, Troncoso LL, de Moraes HV Jr, and Zaltman C. Writing-original draft: Biancardi AL and Zaltman C. Writing-review and editing: Biancardi AL, Troncoso LL, Moraes HV Jr, Zaltman C. Approval of final manuscript: all authors.

#### REFERENCES

- Lee HJ, Song HJ, Jeong JH, Kim HU, Boo SJ, Na SY. Ophthalmologic manifestations in patients with inflammatory bowel disease. Intest Res 2017;15:380-387.
- Troncoso LL, Biancardi AL, Moraes Jr HV, Zaltman C. Ophthalmic manifestations in patients with inflammatory bowel disease: a review. World J Gastroenterol 2017;23:5836-5848.
- 3. Biancardi AL, Zaltman C, Troncoso LL, Luiz RR, Moraes HV Jr. The role of clinical-demographic characteristics in ophthalmic manifestations of inflammatory bowel disease. Inflamm Bowel Dis. [published online ahead of print May 11, 2018]. https://doi.org/10.1093/ibd/izy159.
- 4. Carnahan MC, Goldstein DA. Ocular complications of topical, peri-ocular, and systemic corticosteroids. Curr Opin Ophthalmol 2000;11:478-483.
- Cunningham ET, Zierhut M. TNF inhibitors for uveitis: balancing efficacy and safety. Ocul Immunol Inflamm 2010;18:421-423.
- Cunningham ET Jr, Pasadhika S, Suhler EB, Zierhut M. Druginduced inflammation in patients on TNF alpha inhibitors. Ocul Immunol Inflamm 2012;20:2-5.

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