



## **ULTRASONOGRAPHIC EVALUATION OF VITREITIS IN PATIENTS WITH INTESTINAL INFLAMMATORY DISEASE AND MUSCULOSKELETAL MANIFESTATIONS**

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### **BACKGROUND**

Ocular manifestations can occur in up to 25% of patients with inflammatory bowel disease (IBD) and musculoskeletal manifestations, usually as intermediate and posterior uveitis, seen by ultrasound (US) as a vitreitis. It may have chronic, indolent and bilateral evolution. US is useful in diagnosis of posterior chamber changes, especially if combined with ophthalmoscopy. The objective of this study was to evaluate the presence of vitreitis in the ocular US and to describe the frequency of clinical findings in individuals with IBD and musculoskeletal manifestations (MME).

### **MATERIALS AND METHODS**

A cross-sectional study with IBD patients from a University Hospital, submitted to anamnesis, ophthalmoscopy and ocular US by an experienced physician - US ESAOTE My Lab 70, linear transducer, B mode, 12MHz frequency, blindly and independently. US with vitreitis was defined by the presence of vitreous opacities: multiple structures with dynamic, low-echogenic, confluent or peripheral US dynamic echoes.

### **RESULTS**

34 patients, 22 with Crohn's disease (CD) and 12 with ulcerative colitis (UC), were evaluated, majority of women (73%), mean age 43.6 years ( $\pm 13.9$ ), 11 years ( $\pm 7.2$ ) of diagnosis of IBD, inflammatory back pain in 59% (n = 20); arthralgia / arthritis / inflammatory enthesopathy in 56% (n = 19); intestinal activity in 41% (n = 14). Current ocular symptoms has been presented in 50% of the patients and 8 patients (24%) presented vitreitis by the ocular US, with bilateral predominance (n= 5); 6 patients with CD and 2 with UC, 6 patients with clinical ocular complaints and none with active uveitis/vitreitis by ophthalmoscopic examination, but ophthalmoscopy found other non-uveitis alterations in these 8 patients: 2 asymptomatic (subclinical cataract and glaucoma) and 6 symptomatic : glaucoma (n = 3), cataract (n = 3), presbyopia (n = 1). In relation to musculoskeletal manifestations, these 8 patients had: negative HLAB27, pauciarticular synovitis or sacroiliitis by US in 62.5%; enthesopathy by US in 100%, with 88% in Achilles / plantar fascia; "Madrid Sonographic Enthesitis Index" (MASEI) > 18 in 62.5% (mean MASEI:29.4). 75% had high fecal calprotectin and 50% with intestinal activity by Harvey-Bradshaw Index and Mayo score.

### **CONCLUSION**

Unpublished study with high frequency of ocular symptoms and vitreitis by US, not seen in ophthalmoscopy, and high frequency of pauciartthritis, poly-enthesitis and intestinal activity in those patients. Ocular US may be a good tool for early diagnosis of posterior chamber uveitis, preceding ophthalmoscopy, however, larger and controlled studies are needed.