Eye-BD: A Rare Case of Sequential Bilateral Orbital Myositis as an EIM of Crohn's Disease

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CASE PRESENTATION

A 22-year-old female with colonic Crohn's Disease (CD) on ustekinumab monotherapy every eight weeks for maintenance of remission, presented to the emergency room with three days of right eye swelling and pain with eye movement.

Computed Tomography (CT) of the orbits initially revealed minimal pre-septal tissue swelling of the right orbit without evidence of orbital cellulitis. She was started on NSAIDs and discharged home.

She was evaluated by Ophthalmology two weeks later. During follow-up, she had complete resolution of her right eye symptoms, but reported new, similar symptoms in her left eye.

Exam revealed restriction of the lateral and medial gazes, painful eye movement, and chemosis of the left eye.

The orbital CT images were reviewed by the oculoplastic surgeon, and subtle enlargements of multiple extra-ocular muscles in the right orbit were noted (**Figure 1** and **Figure 2**). She was subsequently diagnosed with bilateral (sequential) OM was made.

She was started on prednisone 40 mg daily.

She denied any gastrointestinal symptoms or any other extraintestinal manifestations. Metabolic/rheumatologic work-up was unremarkable.

KEY REFERENCES

McNab AA. Orbital Myositis: A Comprehensive Review and Reclassification. Ophthalmic Plast Reconstr Surg. 2020;36(2):109-117.

Greuter T, Vavricka SR. Extraintestinal manifestations in inflammatorybowel disease - epidemiology, genetics, and pathogenesis. Expert RevGastroenterol Hepatol. 2019;13(4):307-317.

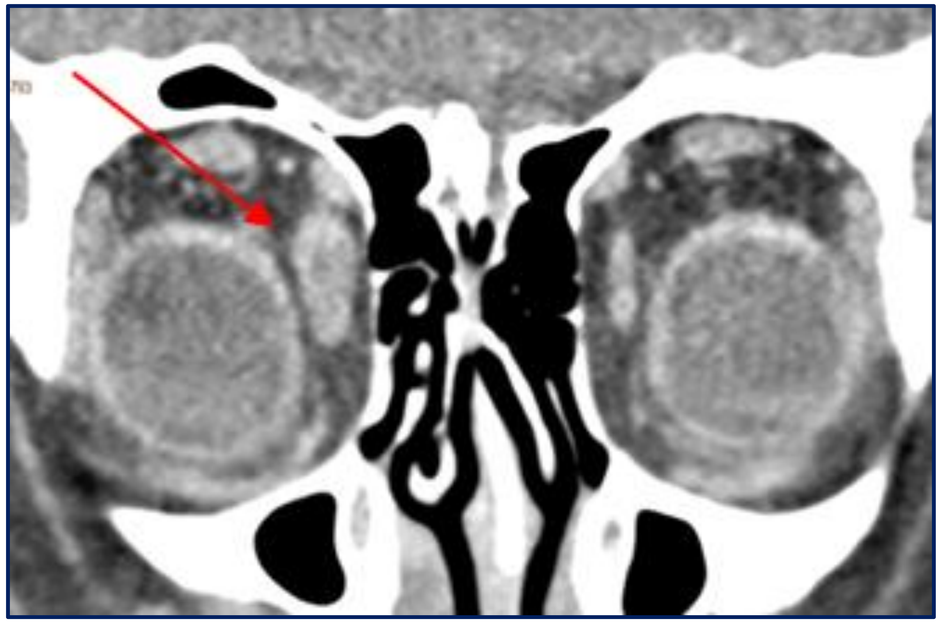

Figure 1. Orbital CT, coronal. Asymmetric enlargement of the medial rectus in the right orbit (red arrow).

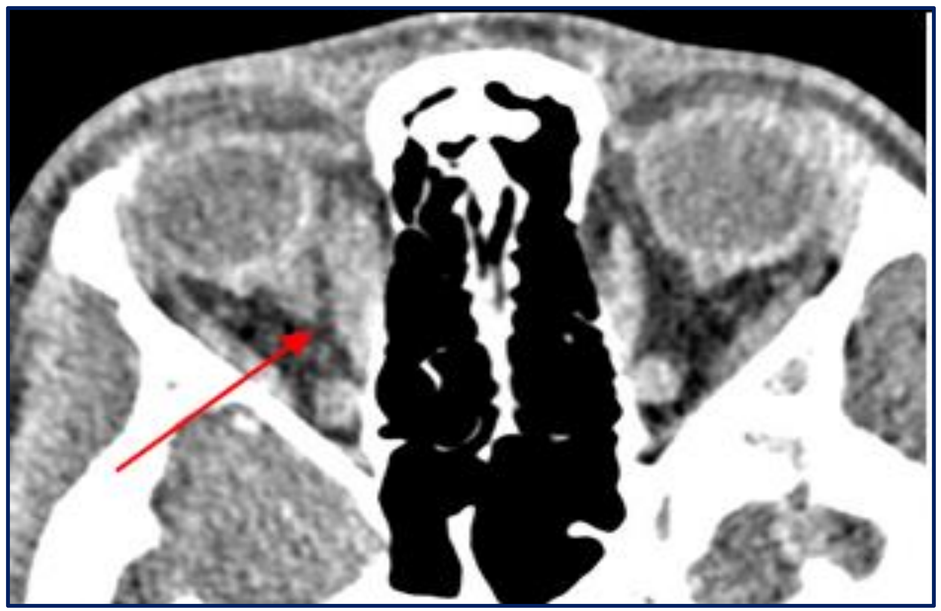

Figure 2. Orbital CT, axial. Prominent medial rectus enlargement is appreciated (red arrow), to include involvement of the myotendinous junction.

DISCUSSION

Orbital Myositis (OM) presents with a triad of orbital swelling, ophthalmoplegia, and pain, overlapping significantly with other more common ocular diseases.

May be Idiopathic (most common) or secondary to autoimmune, infectious, neoplastic, or drug-induced etiologies.

Given bilateral, sequential eye involvement with a negative laboratory evaluation for thyroid disease, vasculitides, sarcoid, and IgG-4-related disease, we strongly suspect our patient's OM to be secondary to her IBD.

CD-associated OM is believed to arise from immune complex mediated cross-reactivity between colonic mucoproteins and orbital muscles

A review of the literature revealed that OM occurs independently of gastrointestinal luminal disease activity, with multiple case reports of OM occurring in active disease, but also during clinical remission, as well as years before any reported gastrointestinal symptoms.

Steroids remain the mainstay of treatment.

CONCLUSION

Orbital Myositis is an exceptionally rare ophthalmologic disease which requires a high index of suspicion and careful work-up for accurate diagnosis and management.

Multidisciplinary care between subspecialty provides often essential to effectively managing extra-intestinal manifestations in IBD

Our patient completed her steroid taper and has not had recurrence of ocular symptoms in one year. She continues to remain in clinical remission.

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