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Rare Occurrence of Microsporidial Myositis Involving Masticatory Muscles

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A forty-five-year-old lady with acquired immunodeficiency syndrome, on anti-retroviral-therapy (tenofovir disoproxil, lamivudine, dolutegravir), presented with painful mastication and generalized musculoskeletal pain for 6 weeks. She had bilateral hand contractures, with tender masseters, temporalis and gastrocnemii. Absolute eosinophil count was 500 cells/cumm, creatine phosphokinase 66U/L and CD4 count 147 cells/cmm. Cranial MRI showed infiltration of masticatory muscles (Figure 1). Muscle biopsy revealed microsporidial myositis (Figure 2). Microsporidia are obligate intracellular fungi classically affecting immunocompromised hosts.¹ We present findings of rare microsporidial myositis affecting masticatory muscles. Muscle biopsy is diagnostic and excludes potential clinical (polymyalgia rheumatica, temporal arteritis), medication-related and histologic mimics.²

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Figure legends:

Figure 1:

Cranial MRI

Axial sections of cranial MRI depict heterogenous signal intensities involving both masseters (straight arrows), left pterygoid muscle (red curved arrows) and both temporalis muscles (white curved arrows) on FLAIR (A,E) and T2-weighted (B,F) sequences; hyperintense signals in the same muscles are noted on T1-weighted (C,G) sequence with suggestion of contrast-enhancement on T1-Gadolinium-fat-suppressed (D,H) sequence.

Figure 2:

Muscle biopsy

Skeletal muscle biopsy showing endomysial lymphocytic infiltrate. Few myofibres show presence of clusters of unstained ovoid, yeast-like bodies consistent with microsporidia (arrows). Hematoxylin & Eosin, x200

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