INTRODUCTION

- Muscle pain (myalgia) and muscle weakness are common clinical presentations for a variety of pathologies.
- A thorough clinical workup is required, and imaging, particularly magnetic resonance imaging (MRI), can be quite helpful in narrowing the differential diagnosis.
- This exhibit will review the clinical and imaging workup of patients presenting with symptoms of both acute and chronic myositis.

CLINICAL WORKUP

- Thorough history and physical exam.
- Lab assessment: creatine kinase (CK), erythrocyte sedimentation rate (ESR), C-reactive protein (CRP), autoantibodies, electromyography.
- MRI findings alone are nonspecific. The goals of MRI are: to identify if myositis is present, categorize findings as acute or chronic, evaluate extent and severity of involvement, and help guide optimal biopsy location.

ACUTE MYOSITIS

- MRI findings: intramuscular and myofascial edema with hyperintense signal on T2-weighted (T2W) and short tau inversion recovery (STIR) sequences.

MYOSITIS

- Etiologies: dermatomyositis, polymyositis, inclusion body myositis, lupus, rheumatoid arthritis, scleroderma, Sjogrens, scleroderma, infectious myositis, diabetic myositis/myonecrosis.
- Autoantibodies: anti-Jo1, PL-7, PL-12, SRP, Mi-2, anti-CCP, anti-ss (a and b), anti-Ro and anti-La.

CHRONIC MYOSITIS

- MRI findings: fatty infiltration (T1 weighted feathery hyperintense signal within muscle), muscle atrophy and no edema on T2W or STIR sequences.

CONCLUSION

- MRI is essential in the evaluation of muscle pathology, helping to determine the presence and acuity of myositis. It assists in determining the next clinical step.
- Close collaboration between both clinicians and radiologists is required for final diagnosis and treatment.

References