EM CASE OF THE WEEK.

BROWARD HEALTH MEDICAL CENTER
DEPARTMENT OF EMERGENCY MEDICINE

BROWARD HEALTH
Care Warriors

Author: Kenneth Wojnowski Jr. | Editor: Ajith Susai, DO

December 2017 | Vol 4 | Issue 35

Proximal Muscle Pain and Weakness for Three Months

A 68 year old female with past medical history of fibromyalgia and anxiety presented to the North Broward Medical Center ER with a chief complaint of proximal muscle pain for the previous 3 months. The patient was an avid hiker and tennis player up until this point where she began to develop muscle pain in her shoulders and thighs which was 9/10 in severity, constant, non-radiating and aching in nature. This pain was associated with severe weakness in her pelvic and shoulder girdles. She reported being unable to rise from a seated position without assistance. Other associated symptoms included neck pain and fatigue. Her home medications included lyrica and trazodone. She reported current occasional cigar smoking, social drinking and no drug use. Past surgical history was positive for salivary gland removal and right ankle and knee repair. Family history was non-contributory. Pertinent physical exam findings included 2+ muscle strength in all four extremities, as well as decreased ROM in all planes in all four extremities with associated pain. DTR's were 2+ bilaterally. She was unable to raise her hands above her head. Vital signs were within normal limits. Pertinent lab findings included a normocytic normochromic anemia with an elevated platelet count. ESR elevated at 107mm/hr, CRP elevated at 6.36mg/L. CK and thyroid studies were within normal limits. ANA and RF factors were negative. After admission, the patient improved with a short course of corticosteroids.

What is the most likely diagnosis for this patient?

A. **Dermatomyositis**
B. **Polymyositis**
C. **Lupus**
D. **Polymyalgia rheumatica**
E. **Osteoarthritis**

EM Case of the Week is a weekly "pop quiz" for ED staff.

The goal is to educate all ED personnel by sharing common pearls and pitfalls involving the care of ED patients. We intend on providing better patient care through better education for our nurses and staff.

BROWARD HEALTH MEDICAL CENTER

Department of Emergency Medicine
1625 SE 3rd Avenue
Fort Lauderdale, FL 33316

Warriors

BROWARD HEALTH MEDICAL CENTER

December 2017 | Vol 4 | Issue 35

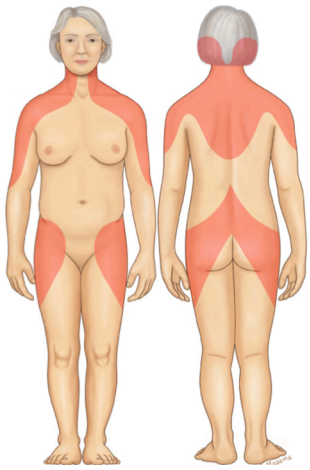
The correct answer is D. Dermatomyositis would present with classical findings such as heliotrope rash or Gottron's papules. Polymyositis would occur with weakness and usually does not have associated pain. Lupus would have a positive ANA, and osteoarthritis would not likely be found bilaterally.

Introduction

Polymyalgia rheumatica (PMR) is a rheumatologic disease that commonly affects elderly adults and classically presents as pain in the proximal muscles of the hip and shoulder girdles. PMR is a clinical diagnosis that can be made by having a constellation of symptoms such as pain, weakness and fatigue. Common rheumatological lab values such as an ANA, RF or CK will all be negative in PMR, essentially ruling out Lupus, Rheumatoid Arthritis and Polymyositis. Roughly 15% of patients with PMR will develop symptoms of temporal arteritis, and roughly 50% of patients with temporal arteritis will develop PMR. A rapid response to corticosteroid treatment is considered pathognomonic of the disease. The etiology of the disease is unknown. There is a relative association with the HLA-DR4 genotype, suggesting an autoimmune process. High levels of IL-6 found in patients with more severe disease also lend a strong suggestion towards an autoimmune etiology. Polymyalgia rheumatica is twice as common in females as it is in males.

Initial Evaluation

Gathering a thorough history and physical is important in the diagnosis of PMR. As this is an acute disease, patients were likely in good health up until the onset of the disease. Pain and stiffness of proximal muscles is the hallmark of PMR. Weakness is usually not associated with PMR, but can occur secondary to myalgias. The patient might be unable to rise from a seated position or comb their hair, and suffer from



morning stiffness lasting greater than an hour. Other symptoms found in a lower percentage of PMR patients are weight loss, malaise, fatigue, low grade fevers and depression. Laboratory evaluation will reveal an elevated ESR and CRP which are sensitive for PMR but nonspecific. Patients will often have normocytic, normochromic anemia and reactive thrombocytosis. CK levels will be normal, which differentiates PMR from polymyositis. ANA and RF will be negative in PMR, which is useful to rule out lupus and rheumatoid arthritis. Imaging studies are not necessary in the diagnosis or management of PMR.

Management

Corticosteroids are the standard of care for polymyalgia rheumatic. Recommendations from the American College of Rheumatology include 12.5-25mg/day of prednisone for initial treatment. The dosage should be tapered by 1mg/month until the total dosage is 10mg/day. After that, a second tapering can occur at a rate of 1mg every 2 months until optimal control at the lowest dose of corticosteroids is achieved. The ESR should fall along with the resolution of symptoms. NSAIDs can be supplemented for additional pain relief.

In randomized control trials, methotrexate used along with prednisone was found to have additional benefits. An IL-6 receptor antagonist, tocilizumab has recently been shown to be effective in patients with polymyalgia rheumatica, and may soon be used as monotherapy in place of corticosteroids. Patients on chronic corticosteroid treatment should be monitored for side effects of the medication such as decreased bone mineral density and hyperglycemia. As stated above, the steroid should be tapered as soon as possible. It is also extremely important to remember the association between polymyalgia rheumatic and temporal arteritis. Development of severe headache or unilateral vision loss necessitates immediate evaluation and treatment for temporal arteritis.

PMR classification criteria scoring algorithm—required criteria: age 50 years or older, bilateral shoulder aching and abnormal CRP and/or ESR

	Points without US (0–6)	Points with US† (0–8)
Morning stiffness duration >45 min	2	2
Hip pain or limited range of motion	1	1
Absence of RF or ACPA	2	2
Absence of other joint involvement	1	1
At least one shoulder with subdeltoid bursitis and/or biceps tenosynovitis and/or glenohumeral synovitis (either posterior or axillary) and at least one hip with synovitis and/or trochanteric bursitis	Not applicable	1
Both shoulders with subdeltoid bursitis, biceps tenosynovitis or glenohumeral synovitis	Not applicable	1

- ↵* A score of 4 or more is categorised as PMR in the algorithm without US and a score of 5 or more is categorised as PMR in the algorithm with US.
- ↵† Optional ultrasound criteria.
- ACPA, anticitrullinated protein antibody; CRP, C-reactive protein; ESR, erythrocyte sedimentation rate; PMR, polymyalgia rheumatica; RF, rheumatoid factor; US, ultrasound.

Take Home Points

- A careful history and physical should be obtained to identify polymyalgia rheumatica
- Laboratory evaluations are essential to rule out other similar causes of proximal muscle pain and weakness such as lupus or polymyositis
- Rapid response to corticosteroid treatment is pathognomonic of PMR
- PMR and temporal arteritis are strongly associated

ABOUT THE AUTHOR

This month's case was written by Kenneth Wojnowski. Kenneth is a 4th year medical student at Nova Southeastern College of Osteopathic Medicine. He did his Emergency Medicine Rotation in December of 2017 at North Broward Medical Center. Kenneth plans on completing a residency in Internal Medicine with the hopes of practicing Hospitalist Medicine.

REFERENCES

1. Saad, E, MD. Polymyalgia Rheumatica. Retrieved December 14, 2017, from https://emedicine.medscape.com/article/330815-overview
2. Docken, W, MD. Clinical Manifestations and diagnosis of polymyalgia rheumatic. Retrieved December 14, 2017 from https://www.uptodate.com/contents/clinical-manifestations-and-diagnosis-of-polymyalgia-rheumatica
3. Macchioni et al. Performance of the new 2012 EULAR/ACR classification criteria for polymyalgia rheumatic: comparison with the previous criteria in a single centre-study. Ann Rheum Dis. 2014; 73(6): 1190-3.