# Assessment and Management of Polymyalgia Rheumatica and Temporal Arteritis in Older Adults

By: Laurie M. Kennedy-Malone, PhD, RN, CS, and Gina L. Enevold, MSN, RN, CS, GNP

Kennedy-Malone, L. & Enevold, G. (2001). Assessment and management of polymyalgia rheumatica and temporal arteritis in older adults. *Geriatric Nursing, 21,* (3), 152-155.



## Abstract:

Polymyalgia rheumatic (PMR) is a periarticular rheumatic condition characterized by pain and stiffness, primarily in the neck, shoulders, hips, and pelvic girdle. Temporal arteritis (TA) or giant cell arteritis, the most common primary vasculitis in older adults, is found in approximately 10% to 30% of people who have PMR. Left untreated, TA can result in sudden, irreversible blindness. Geriatric nurses need to familiarize themselves with these disorders to accurately assess and manage people with them.

## Article:

Polymyalgia rheumatica (PMR) is a periarticular rheumatic condition characterized by pain and stiffness, primarily in the neck, shoulders, hips, and pelvic girdle. Older adults with nonspecific musculoskeletal aches and fatigue may associate these symptoms with growing older. Temporal arteritis (TA) or giant cell arteritis, the most common primary vasculitis in older adults, is found in approximately 10% to 30% of people who have PMR.[1] Left untreated, TA can result in sudden, irreversible blindness.

PMR predominately is found in adults 50 and older. The incidence of PMR increases with age, with the peak onset occurring in the seventh decade. The prevalence of PMR is the highest in Caucasian women of European descent.[2] The etiology of PMR remains unknown. However, any relationship between PMR and the presence of HLADR4 haplotype suggests a genetic predisposition.[3]

## CLINICAL PRESENTATION

Generally, a person with PMR has been in good health before the onset of symptoms. Initially, an older adult may seek pain relief with heat applications or over-the-counter analgesics. Over time, increasing pain and difficulty in performing activities of daily living (ADLs), such as transferring, grooming, and dressing, prompt the older adult to seek advice from a health care provider.

PMR is a systemic disease. The muscle aches reported by sufferers usually are symmetrical and involve the shoulder girdle, upper arms, hips, thighs, and lower back. Stiffness occurs in the morning and may last longer than 30 minutes. Older adults with PMR symptoms may notice stiffness later in the day if they have been sitting or reclining for an extended time. On occasion, a person may experience a unilateral bursitis in a shoulder, but generally the pain progresses symmetrically.[4] People often report prolonged fatigue, anorexia, malaise, fever, and night sweats associated with the musculoskeletal complaints, and it is not unusual for them to express fear, apathy, or depression.[5] They may suspect they have acquired a terminal illness, such as an unidentified cancer.

During a physical examination of the person with suspected PMR, tenderness may be elicited from the afflicted area(s). Decreased muscle strength generally is not found, despite reports of weakness and inability to perform ADLs. In addition, people may report they are having difficulty grasping small objects. Therefore, it is important to assess for signs of carpal tunnel disease (evidence of paresthesia of the thumb, index, and middle finger) in people diagnosed with PMR. Often they have a normochromic, normocytic anemia. Thus, looking for signs of pallor is important during the overall examination.[6]

Critical to the assessment of people with suspected PMR is the evaluation for possible TA. Everyone presenting with PMR symptoms need to be assessed for TA and evaluated for transient visual disturbances, temporal or occipital headaches, and jaw or ear pain. Older adults who have associated TA also may present with a sore throat, hoarseness, and cough.[7] Clinicians should ask if they have any pain while chewing. Patients also may report scalp tenderness when shampooing or combing their hair.[8]

Visual acuity can be measured using a hand-held Rosenbaum chart if the person is unable to stand in front of a Snellen chart (or if the wall chart if not available).[9] Examination by an opthamologist is recommended. Visual changes in TA can begin in one eye and progress to the other within a short period—from a day to little more than a week. Any new visual changes the person reports should be recorded. Palpation of the temporal or occipital arteries may elicit tenderness. Erythema and swelling may be present at the site of these arteries.

## CLINICAL MANAGEMENT

PMR can mimic several other clinical conditions, including elderly onset rheumatoid arthritis (EORA), certain cancers, hypothyroidism, fibromyalgia, and polymyositis. After a thorough history and physical, diagnostic tests should be ordered to further differentiate PMR from these disorders. The laboratory hallmark for PMR is an elevated erythrocyte sedimentation rate (ESR). A finding of ESR greater than 50 mm/hr is common in people with PMR or TA, and results may exceed 100 mm/hr.

Although the ESR results usually are elevated in both PMR and TA, a diagnosis should not be made based on this finding only. Frequently, people with PMR or TA may have an initially normal ESR.[1] PMR can be differentiated from EORA by the absence of synovitis. Thyroid-stimulating hormone (TSH) levels can be reviewed to determine if a thyroid dysfunction exists. If the person has demonstrated weakness on examination, muscle enzyme testing (especially creatine, phosphokinase, and aldolase) may be ordered to rule out polymyositis. If multiple myeloma is suspected, a serum protein electrophoresis may be ordered. A complete blood count with indices may indicate a normochromic normocytic anemia in people with PMR.

Oral corticosteriods continue to be the standard drugs of choice to treat PMR and TA. Corticosteriods provide prompt, symptomatic relief of generalized pain and aching. Although controversial, this dramatic response to therapy is considered diagnostic of PMR by some authorities. In addition, clinicians continue to debate the ideal starting dose, treatment duration, and tapering schedule for steroid therapy. Steroid-sparing agents, such as methotrexate and azathioprine, may be used to treat relapsing cases of PMR or TA. Nonsteroidal anti-inflammaory drugs (NSAIDs) are not recommended for the treatment of PMR or TA.[11]

## CASE STUDY

A 70-year-old Caucasian woman was seen by her health care provider and gave complaints of pain and stiffness in her hips, neck, and shoulders that lasted most of the day for 6 weeks. In addition, she reported frequent left temporal headaches, fatigue, and myalgias, suggestive of a viral syndrome. She said that, because of this “pain and stiffness all over,” she required assistance getting out of bed in the morning. She had no history of weight loss, poor appetite, hearing loss, or jaw claudication. She could not recall any unusual physical activity or overexertion before the onset of the muscular aches and pains. Her symptoms were not relieved when she tried naproxen or acetaminophen. She could not recall any recent history of headache or visual disturbances before the recent onset of these symptoms. Her past medical history included hypertension, congestive heart failure, osteoarthritis, and unstable insulin-dependent diabetes mellitus.

Physical examination was pertinent for tenderness on palpation of the shoulder girth bilaterally and the pelvic girdle symmetrically and bilaterally. No scalp tenderness nor temporal or occipital artery redness or enlargement was noted. No muscle atrophy or joint swelling was noted. Muscle strength and active range of motion in the upper and lower extremities were normal. Pertinent laboratory findings revealed an ESR of 135 mm/hr and fasting glucose of 250 mg/dL. Protein electrophoresis, TSH, and the remaining serum chemistries were within normal limits.

The physical findings—a 6-week duration of myalgias, elevated ESR, and complaints of headache and visual disturbances—were compatible with a diagnosis of PMR and possible TA. Because of the elevated ESR and complaints of visual disturbances and headaches, initial therapeutic intervention consisted of prednisone 60 mg each morning in a single dose. An ophthalmologist obtained a left temporal artery biopsy 24 hours after steroid therapy was initiated.

As expected, the woman experienced a dramatic improvement within 3 days of starting the prednisone. The temporal artery biopsy, however, was negative. She denied any further complaints of headache or visual disturbances. Therefore, a right temporal artery biopsy or repeat left temporal artery biopsy was postponed. Because of her controlled symptoms, negative biopsy, and unstable diabetes, steroid therapy was tapered to 15 mg during the next 5 weeks. During the next 3 months, the woman's ESR decreased, and she remained asymptomatic. Steroid therapy continued to be gradually decreased and was discontinued after a total of 18 months without recurring symptoms.

However, 2 months after discontinuing steroid therapy, a relapse of PMR symptoms occurred. The woman had complaints of pain and muscle stiffness consistent with PMR but without headaches, visual disturbances, or jaw claudication. Her providers thought these latter symptoms might have been related to the unstable diabetes. Her ESR was elevated to 131 mm/hr. At this time, steroid therapy was initiated at 10 mg each morning in a single dose. Her symptoms resolved after 2 days of therapy, and the ESR decreased to 90. Because of the continued unstable diabetes, methotrexate (a steroid-sparing agent) was initiated, and steroid therapy gradually was discontinued. The woman remains asymptomatic with a normal ESR on low-dose methotrexate.

## CONCLUSION

PMR, although a fairly common disorder in older adults, may go undiagnosed and untreated as a result of nonspecific musculoskeletal complaints and the vagueness of presenting symptoms. Geriatric nurses caring for older adults, especially those who work in long-term care settings with frail elders, need to be on the alert when an older adult complains of muscular aches and pains accompanied by unexplained fever or weight loss. Elders with any acute visual changes warrant immediate attention by an ophthalmologist.

No preventive measures exist for PMR or TA. Steroid treatment can lead to remission in most people, but relapses are common. Patients need to be educated to alert a health care provider if any prevailing signs and symptoms of PMR or TA recur. Although PMR symptoms usually are alleviated within days of initiating oral corticosteroids, people need to be instructed on the importance of completing the prescribed medication regimen. Geriatric nurses can instruct patients about the complications of long-term corticosteroid therapy, such as osteoporosis, infections, and fractures.[4]

Given the risk of developing osteoporosis from longterm steroid use, it would be prudent to recommend that the person have a baseline dual energy x-ray absorptiometry scan. The need for prophylactic therapy to prevent osteoporosis also should be considered.[1] As the case study indicates, elders often have concomitant conditions that may complicate the diagnosis of PMR or contraindicate long-term use of corticosteroid therapy. Therefore, careful self-monitoring and re-evaluation by a health care provider is important.

Nursing concerns must include attention to the individual's fears, anxiety, and depression. Interpersonal support for these vague and frightening disorders is essential.

## REFERENCES

1. Roane D, Griger D. An approach to diagnosis and management of initial management of systemic vasculitis. Am Fam Phys 1999;60:1421-30.
2. Dwoltzky T, Nesher G, Sonnenblick M. Giant cell arteritis and polymyalgia rheumatica. Geriatrics 1997;52:38-40.
3. Carpenter D, Hudacek S. Polymyalgia rheumatica: a comprehensive review of this debilitating disease. Nurs Pract 1994;19:50-8.

4. Kennedy-Malone L, Fletcher K, Plank L. Management guidelines for gerontological nurse practitioners. Philadelphia: FA Davis; 1999. p. 332-5.
5. Epperly T, Harrover J, Moore K. Polymyalgia rheumatica and temporal arteritis. Available from: *www.aafp.org/afp/200000815/789.html*. Cited 2000 Aug 15.
6. Jones J, Hazleman B. ESR in polymyalgia rheumatica and giant cell arteritis [letter]. Ann Rheum Dis 1983;42:702-3.
7. Leslie M. When the ache is not arthritis. RN 2000;63:38-40.
8. Mikanowicz C, Leslie M. Polymyalgia rheumatica and temporal arteritis: a case presentation. Nurs Clin North Am 2000;35:245-52.
9. Lueckenotte A. Pocket guide to gerontological assessment. St. Louis: Mosby; 1994.p.100.
10. Goroll AH, Mulley AG. Primary care medicine. 4th ed. Philadelphia: Lippincott, Williams & Wilkins; 2000. p. 922-30.
11. Labbe P, Hardouin P. Epidemiology and optimal management of polymyalgia rheumatica. Drug Aging 1998;13:109-18.