Polymyalgia Rheumatica (PMR)

**Disclaimer**

**COVID-19 note**

There has been no formal data suggesting worse outcomes of COVID-19 infection in patients with autoimmune inflammatory disease or taking DMARDs or biologic medications (such as TNF inhibitors), despite media reports contradicting this. See:

- *Australian Rheumatology Association* – *Advice for GPs*
- *Arthritis Australia* – *Advice Regarding Coronavirus (COVID-19) from the Australian Rheumatology Association*

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Red Flags

- Giant-cell arteritis (GCA)

Background – About Polymyalgia Rheumatica (PMR)

- PMR is an inflammatory rheumatic condition in older adults characterised by pain and stiffness, most commonly in the neck, shoulders, and pelvic girdle, which is:
  - a clinical diagnosis with no diagnostic test.
  - rare under age 50 years with increasing prevalence with age. The average age of onset is 70 years.
  - 3 times more common in women than men.
  - associated with giant-cell arteritis (GCA):
    - About 15% of patients with PMR will experience GCA at some point.
    - PMR occurs in 40 to 60% of patients with GCA.

- The underlying cause and the pathogenesis is unknown. Despite the association with giant cell arteritis vasculitis involving the vessels of the neck, shoulder and hip girdle has not been found.

Assessment

1. Ask about symptoms (which can be non-specific).

  **Symptoms**
  
  Symptoms are usually symmetrical, can be non-specific, and may have been present for 2 weeks or longer. Symptoms include:
  - pain in neck, shoulders, pelvic girdle, buttocks, and thighs.
  - pain on active and passive movements of the joints.
  - morning stiffness of hip and/or shoulder girdle for more than 45 minutes, and which are often so severe as to cause difficulty turning in bed, rising from chair, or combing hair.
  - systemic symptoms, e.g. anorexia, weight loss, low-grade fever, malaise, physical weakness, or fatigue (about a third of patients). Some patients also report depressed mood.
  - mild synovitis – may occur in the wrists and hands. The feet are never affected. Minor knee effusions and bursitis (most commonly trochanteric bursitis) can occur.

2. Consider alternative diagnoses:

- PMR is usually a severe illness and can be mimicked by many other conditions. Be cautious of making the diagnosis in a patient who has had symptoms for months.
Conditions that mimic PMR

- **Cervical and lumbar spondylosis**
- **Rheumatoid arthritis:**
  - Onset is more gradual.
  - Characteristically, wrist and metacarpophalangeal joints (MCP) joints are affected. Can affect the feet while PMR never does.
  - Positive rheumatoid factor, anti-CCP, or both.

- **Other inflammatory arthritis**
- **Osteoarthritis, rotator cuff disorders**
- Malignancy e.g., paraneoplastic syndrome, lymphoma, myeloma. Look for lymphadenopathy, paraproteinemia.
- **Hypothyroidism**
- **Parkinson disease**
- Inflammatory myopathy (polymyositis) – proximal muscle weakness, elevated creatinine kinase (CK)
- **Drug-induced myalgia, e.g. statins**
- **Fibromyalgia** – tender points, normal ESR

- **Giant-cell arteritis (GCA)** – Specifically ask about new or changed headaches, scalp tenderness, jaw claudication, or visual symptoms.

3. Arrange investigations:

- **CRP** – If the initial CRP is normal and the patient's symptoms strongly suggest PMR, request ESR.
  - CRP and ESR are usually elevated.
  - CRP or ESR is normal in 5 to 10% of people with PMR.

- **FBE**, which may show normocytic anaemia and elevated platelets as part of a general inflammatory response.

- Consider **further investigations** – particularly when considering alternative diagnoses.

**Further investigations**

- **Electrolytes, creatinine, urate, calcium, phosphate**
- **Creatine kinase (CK)**
- **Thyroid-stimulating hormone (TSH)**
- **Rheumatoid factor (RF), cyclic citrullinated peptide antibody (CCP Ab)**
- **Urinalysis for microscopy, protein, culture**
- **Serum protein electrophoresis (SPE)**
- **Chest X-ray**
Management

1. Seek rheumatology advice or refer for urgent or routine rheumatology referral if:
   - diagnostic uncertainty
   - patient aged < 50 years.

2. Start prednisolone – Give 15 mg/day for 1 month, then wean (see below).
   - Prednisolone doses higher than this do not provide additional benefit.
   - A dramatic response should occur within days and is consistent with a diagnosis of PMR. However, an improvement of symptoms with prednisolone does not necessarily mean the patient has PMR. Other inflammatory conditions and fibromyalgia will also respond well to prednisolone. Most painful musculoskeletal conditions will also temporarily feel better with steroids.

3. Prescribe a low-impact, light aerobic exercise program to help mitigate the effects of steroids and to assist with other co-existing musculoskeletal causes of pain, especially degenerative joint disease. Consider referral to an exercise physiologist.

4. If the patient doesn’t respond to prednisolone within 2 weeks, do not increase the prednisolone dose, and consider an alternative diagnosis. Consider referral for urgent or routine rheumatology referral.

5. **Monitor clinically** and when symptoms have resolved for 2 to 4 weeks, start **gradual reduction of prednisolone**.

   **Gradual reduction of prednisolone**
   
   There is no ideal steroid regimen suitable for all patients. Use a flexible individual patient approach.
   - Consider one suggested regimen:
     - First, reduce by 2.5 mg per month to 10 mg/day.
     - Once at 10 mg/day, reduce by 1 mg per month. Some patients may remain symptom-free with a more rapid decrease, e.g. 1 mg increments every 2 to 3 weeks.
   - Maintain low-dose prednisolone 5 to 7.5 mg daily, for 6 months or more, before complete steroid withdrawal at 1 mg per month.
   - Consider a Synacthen test at 5 mg daily, to guide further withdrawal. See Long-term Corticosteroids.
   - Expect most patients to require prednisolone for 18 months to 2 years.
   - Treat any flare of PMR symptoms with an increase to the previous effective prednisolone dose.

   **Monitor clinically**
   - Monitor dose by clinical response, not by CRP or ESR.
   - Ask about:
     - symptoms of relapse.
     - steroid-related adverse effects.
     - symptoms of giant-cell arteritis (GCA).
     - adherence to exercise program.
• Consider monitoring blood pressure and HbA1c.

6. Advise about the risks of long-term corticosteroids:

➢ Provide osteoporosis prophylaxis and advice:
   • Consider starting bisphosphonates.
   • Advise about adequate dietary calcium intake, consider vitamin D replacement, and stress the importance of exercise.
   • Arrange a bone density scan, and write “prolonged steroid use” on the request (this can be requested every 12 months).

➢ Warn about long-term corticosteroid side-effects.

**Side-effects**
- Increased risk of bacterial infection
- Reactivation of latent infection
- Accelerated atherosclerosis
- Osteoporosis
- Psychiatric disturbances (e.g., mania, delirium, and depression) are generally uncommon, unless:
  - pre-existing mood disturbances
  - excessive alcohol intake
  - prednisolone doses > 40 mg
- Diabetes – new onset or reduced control of existing
- Hypertension
- Gastrointestinal ulceration
- Weight gain
- Skin thinning, easy bruising, delayed wound healing
- Insomnia
- Muscle weakness

➢ Give information sheet on oral steroids and sick day advice.

7. Manage any relapse, which is determined by clinical signs and symptoms rather than blood tests.

➢ If PMR symptoms recur during dose-tapering period, return to the patient’s previous steroid dose and restart the taper from that point.

➢ If there are continued relapses, and it is not possible to wean the steroids, arrange urgent or routine rheumatology referral for consideration of methotrexate or leflunomide.

**Referral**

Seek rheumatology advice or refer for urgent or routine rheumatology referral if:
- patient aged < 50 years.
- there is diagnostic uncertainty.
- patient does not respond or only partially responds to steroid therapy.
• considering methotrexate or leflunomide in patient with continued relapses, who cannot be weaned off steroids.

Information

For health professionals

Further information
• Australian Family Physician – Polymyalgia Rheumatica: Clinical Update

For patients

• Australian Rheumatology Association – Medicine Information Sheets
• Musculoskeletal Australia – Polymyalgia Rheumatica
• Patient – Oral Steroids

References


Disclaimer

Last updated: June 2020