Polymyalgia Rheumatica

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What is Polymyalgia Rheumatica (PMR)?

- First described in 1888
- Inflammatory disorder
- Pain and stiffness in neck, shoulders and pelvic girdle

Who is at risk for PMR?

- Almost exclusively in patients > 50 years
- Average age at diagnosis > 70 years
- Mainly seen in people of north European ancestry
- Women more frequently affected than men
- Relatively common: prevalence

  700 per 100,00 persons > 50 years

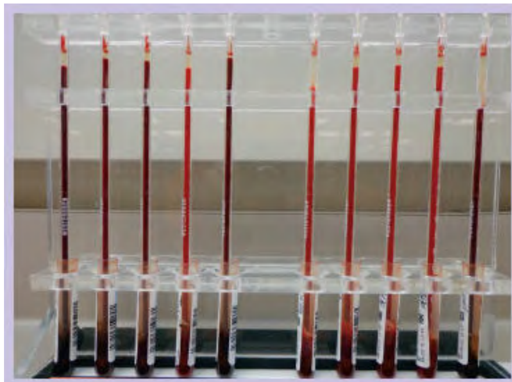
What causes PMR?

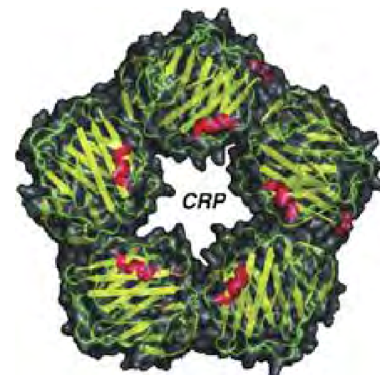
- Cause is unknown
- Both genetic and environmental factors might be important
- Familial association rare
- Seasonal variation and differences in geographical distribution - ? possible environmental trigger

PMR - Presentation

- In some cases, onset can be sudden and dramatic
- In other cases, onset is gradual over a few weeks
- Presence of inflammation in body

➢ Blood tests: raised erythrocyte sedimentation rate (ESR) and/or C reactive protein (CRP)





How is PMR diagnosed?

- Clinical diagnosis - based on symptoms and examination
- No single test available for definite diagnosis
- Blood tests to confirm diagnosis and rule out other reasons for patient symptoms
- Additional tests may be ordered to exclude conditions that mimic PMR

Other conditions to consider in PMR

Inflammatory disorders

- Rheumatoid Arthritis
- Pseudogout (CPPD arthritis)
- Inflammatory muscle diseases (rare)

Non inflammatory disorders

- Frozen shoulder
- Osteoarthritis
- Infection
- Underactive thyroid
- Fibromyalgia (pain syndrome)
- Malignancy (rare)

How are PMR and Giant Cell (temporal) Arteritis (GCA) related?

- Headache, jaw pain on chewing, visual disturbance
- PMR: 2 to 3 more common than GCA
- 50% of GCA patients have PMR symptoms
- 10% of PMR patients go on to develop GCA

PMR - Treatment

- Corticosteroids are the only known effective treatment
- Anti- inflammatories may be used but usually not enough by itself
- Lack of complete response to recommended prednisone doses with atypical features – consider alternative diagnosis

PMR Treatment - steroids

- Monitor response
  - Improvement in symptoms
  - Symptoms and signs suggestive of alternative diagnosis
  - Blood tests: CRP +/- ESR
  - Side effects

PMR Treatment - steroids

- Urgency to start not necessary for PMR, unlike GCA
- Initial recommended prednisone dose 15 to 20mg daily
- If PMR, expect quick response within one week
- Expect inflammatory markers to normalise
- Prednisone dose is gradually tapered
- Most patients (33-50%) can discontinue steroids after two years

Adverse effects of steroidS

- Long term and higher doses carry the most risk

- Skin changes; thinning and bruising
- Body composition changes; weight gain, fluid retention
- Cataracts/Glaucoma
- Irritation of stomach
- Osteoporosis
- Diabetes
- Cardiovascular disorders (high blood pressure, high lipids/cholesterol)
- Mood changes

Adverse events during long term steroid treatment in PMR (n = 222)

- 43% had at least one adverse event after being on steroids continuously for 2.5 years
- Osteoporosis (25%)
- Fracture from osteoporosis (14%)
- High blood pressure (12%)
- Diabetes (5%)
- Heart attack (4%)

Mazzantini M et al J Rheumatol 2012

PMR Treatment – steroids

- Never abruptly stop taking prednisone
- Doses may need to be increased when body is under stress e.g. after surgery, during illness
- Symptoms may recur when prednisone is reduced to lower doses
  - Higher starting dose followed by rapid tapering rate – greatest risk of relapse

PMR Treatment – steroids

- 25-50% PMR patients relapse at some point, most likely over the first 18 months of treatment
- Increase in aches and pains during treatment may not necessarily mean a PMR flare
- Relapse can occur even after treatment discontinued
- 256 PMR patients – 40% relapses occurred 6 months after treatment stopped

Bogliolo Ann Rheum Dis 2009

PMR - Treatment

- Most PMR patients are diagnosed and managed by GPs
- Refer to rheumatologist if
  - Atypical features
  - Lack of response to therapy

Prevention and treatment of steroid induced osteoporosis

- Consider bone density scan
- Vitamin D supplements recommended
- Calcium supplements – dietary intake alone will suffice
- For high risk patients (reduced bone density or fragility fracture)
  - ➢ Bisphosphonates (Fosamax/IV Aclasta) recommended

PMR Treatment
Steroid sparing agents
(not routinely used)

- Methotrexate
- Leflunomide (Arava)

Adizie T et al Int J Clin Pract 2012

What can I do?

- Balance activity and rest
- Exercise regularly (low impact) – physiotherapy is useful
- Nutrition – calcium in diet, healthy balanced diet
- Relaxation techniques
- Seek support

PMR – Update

American Rheumatology Conference Oct 2013

- PMR: Prioritisation of outcome measures – perspective of patients, GP and rheumatologists
- General symptoms (**fatigue, malaise, sleep disturbance, depression/anxiety), functional status and quality of life** more relevant to patients with PMR compared to rheumatologists

Singh Y et al Abstract #1662

Table: European League Against Rheumatism and American College of Rheumatology provisional criteria for classification of polymyalgia rheumatica[50,51]

	Points
Clinical criteria for scoring algorithm*	
Morning stiffness lasting more than 45 min	2
Hip pain or restricted range of motion	1
Absence of rheumatoid factor and antibody to cyclic citrullinated peptide	2
Absence of other joint involvement	1
Ultrasound criteria for scoring algorithm*	
At least one shoulder with subdeltoid bursitis, biceps tenosynovitis, or glenohumeral synovitis; and at least one hip with synovitis or trochanteric bursitis	1
Both shoulders with subdeltoid bursitis, biceps tenosynovitis, or glenohumeral synovitis	1

What is the outlook?

- Most patients with PMR lead productive active lives
- Duration of drug treatment differs for each patient
- In PMR, no increased risk of cardiovascular disease with corticosteroid treatment

Maradit-Kremers Arthritis Rheum 2007

- Survival similiar to general population

Salvarani Arthritis Rheum 1995

Gran Rheumatology 2001

PMR - Summary Points

- Common
- Affects the elderly
- Accurate diagnosis is key
- Early specialist opinion recommended if diagnosis uncertain
- Treatment (holistic approach) – emphasis: prevention and management of side effects of therapy
- Excellent long term prognosis - most resolve in 2-5 years