RHEUMATOLOGY ROUND TABLE
OCTOBER 6, 2021

Polymyalgia Rheumatica
Diagnosis and Treatment Pearls

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Disclosures

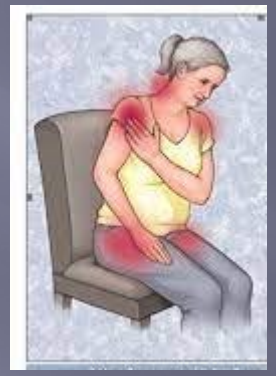
I have no disclosures to declare
as it relates to this topic and treatments

- I receive a stipend from VIHA as Head of the Division of Rheumatology
- I request funding from pharmaceutical companies as chair and organizer of the Vancouver Island Rheumatology Association (VIRA)
- I receive an honorarium as an OSCE examiner for the Western Alliance of Rheumatology (WAR)
- I receive an honorarium for regional, provincial and Western Canada advisory boards

Objectives

- At the conclusion of this activity, participants will be able to:
  - Acquire current knowledge to recognize and correctly diagnose polymyalgia rheumatica (PMR)
  - Develop a treatment strategy and understanding of a treatment response
  - Appreciate when flares are deemed a treatment failure and appropriate steroid-sparing treatment
  - Consider a differential diagnosis

Case: V.J.



68yo woman PMH breast cancer treated with lumpectomy 3 years ago and letrozole; dyslipidemia on rosuvastatin

Feels generally achey “for quite some time” and thought she was just getting “old”

Letrozole discontinued without benefit

But in the last 2 weeks has more pain affecting the shoulders and buttock region, worse in the morning with difficulty rising from a chair

CRP 6.8 (1 year prior <1.0)

Hemoglobin 113 normal MCV (6 months prior Hgb 128)

ESR 36

Questions for Consideration

- Is this PMR?
- Could medications be an offender?
  - Aromatase inhibitor
  - Statin:
    - large nocebo effect; actual risk <5%; 30% discontinue because of “sore”, “weak”, “tired” muscles
- Should we consider her history of cancer in our interpretation of MSK pain?
- Is the mild CRP elevation significant enough to help in the diagnosis?
- What could mimic her presentation?

EULAR/ACR Classification Criteria

- Intended as a research tool
- Not diagnostic
- May serve as a guide

Age

- At least 50 years of age or older
- Almost exclusively

Distribution

- Bilateral shoulders
  - Periarticular inflammation
- Hip pain is less specific

Serology

- Abnormal CRP (>10mg/L) +/- ESR (>20mm/h)
- Only 1.5% have a normal CRP and ESR
  - Require classic clinical picture, response to steroids and other etiologies are excluded

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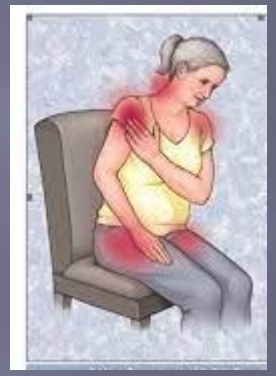

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Treatment

- Working diagnosis of PMR
- Elect to start prednisone
- Little evidence to substantiate response to prednisone is a diagnostic feature
- At least 70% global improvement in 1 week and normal APR in 3-4 weeks on prednisone 15mg-20mg daily BSR 2009
  - Up to 29-45% do not respond adequately to steroids within 3-4 weeks

Treatment

Prednisone 12.5mg – 25mg po qd

- Lower preferred if co-morbidity;
- Higher if concern high risk of relapse and low risk of adverse effects

Prednisone 20mg-30mg po qd

- Lower relapse rate

Avoid prednisone >30mg po qd

- More harm than benefit

No data showing benefit of divided steroid dosing

- Only if severe night pain or extensive morning stiffness despite single daily dosing

Treatment

No evidence for an ideal tapering regimen

- Be flexible and tailored
- Minimum effective individualized duration of GC treatment

Guidelines recommend reducing by 10-20% q 2-4 weeks

- Achieve 10mg daily (within 4-8 weeks) and then slow the taper

Consider an alternate day regimen or 1mg decrements q 4weeks

- E.g. 10mg alternating with 7.5mg, 7.5mg…

Treatment

- Usually 1-2 years of treatment is required
- Flares are common with a relapse rate >50%, and on average 1-2 X/year
- Flares often respond to resuming the pre-relapse steroid dose
- Then consider slowing the taper

Treatment

Isolated rise in CRP or ESR

- No recurrence of symptoms does not automatically trigger intensifying steroid
- Do not increase steroids to lower the APR

Flare of symptoms without elevated CRP or ESR

- Prodrome for an impending flare?
- Withdrawal phenomenon?
- Alternate diagnosis?

Monitor closely.

Possibly hold the steroid dose and await repeat bloodwork

Alternate Treatment Strategy

- Mild disease or high comorbidity
  - Hypertension; diabetes / glucose intolerance; CV disease; dyslipidemia; peptic ulcer; osteoporosis/ fractures; cataracts, glaucoma; chronic or recurrent infections
- Intramuscular methylprednisolone over 12 months
- MP 120mg IM q 3-4 weeks, reduce by 20mg q 3-4 weeks - q 2 months

Methotrexate as Steroid Sparing Therapy

Recurrent relapses

Comorbidity or concomitant meds that increase adverse event risk

- Steroid side effects are frequent, occurring in 50%

4 RCT and 1 retrospective with moderate to high quality of evidence

- Higher remission; lower relapse; greater GC discontinuation; lower cumulative GC doses

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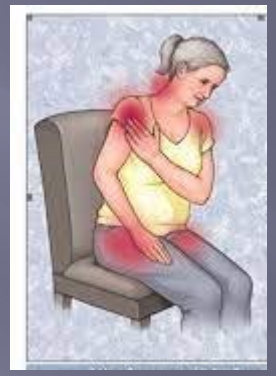

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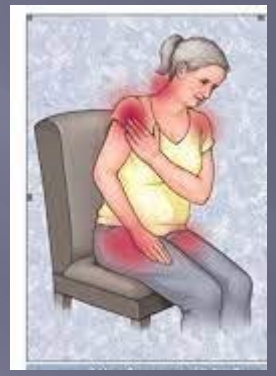

Working diagnosis: PMR

Started on prednisone 20mg po qd

Initial benefit, but now waning with more pain and stiffness including the hands

CRP 10.2

Case: V.J.

PMR is a proximal disease

Small joint involvement is not typical

Distal extremity swelling or defined polyarthritis should prompt consideration for RA / seronegative arthritis

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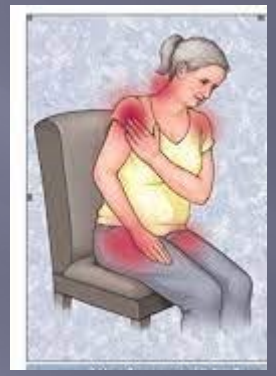

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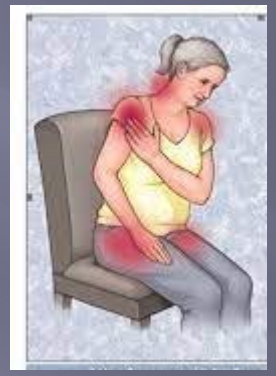


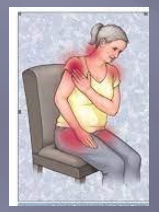
Working diagnosis: PMR

Started on prednisone 20mg po qd

Initial benefit, but now waning with more pain and stiffness especially the “hips” / low back and knees. Difficulty rising after sitting. Knee pain is impeding activities like hiking.

CRP 0.9

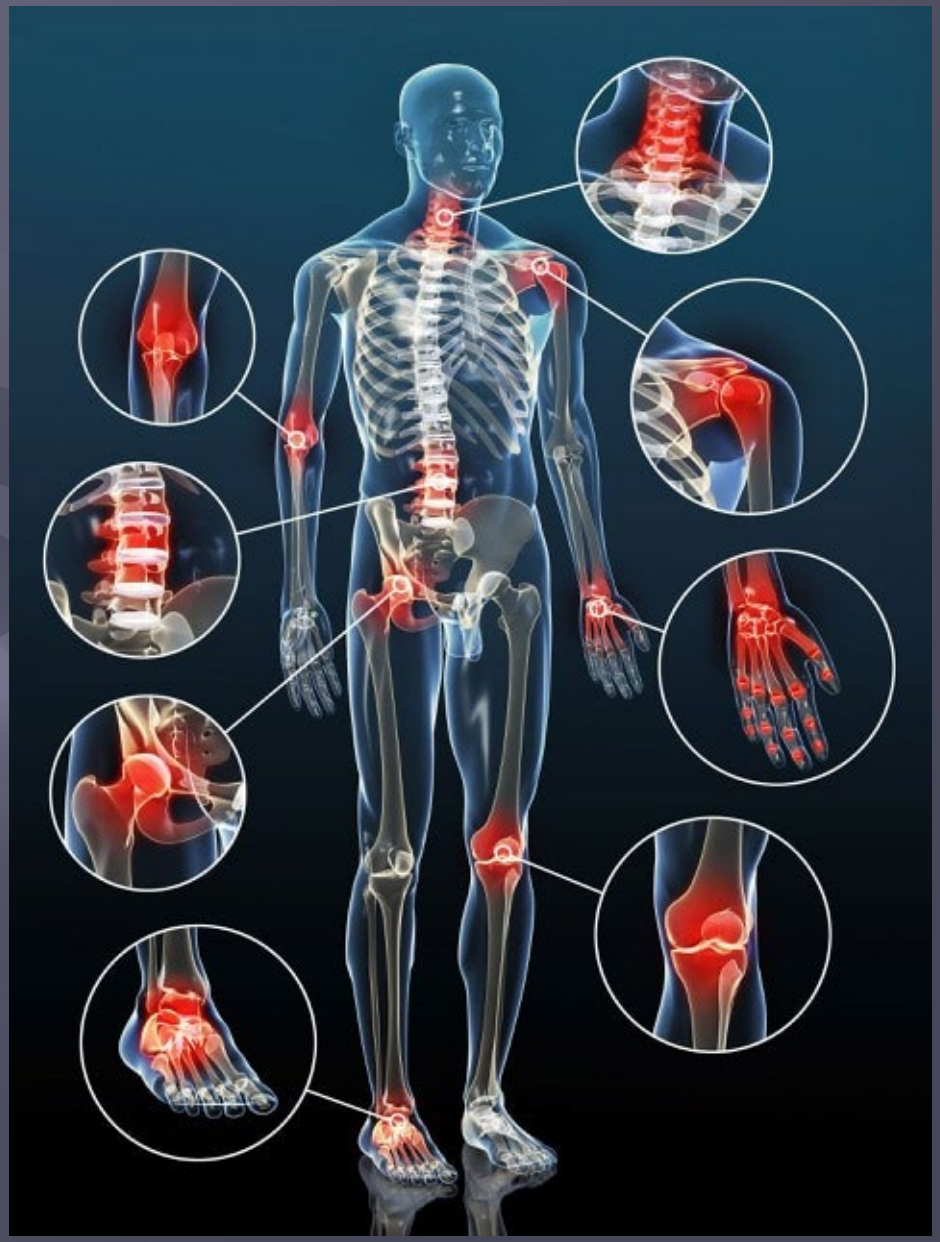
Case: V.J.



Osteoarthritis can be associated with low grade synovitis

Neck, AC joint, lumbar spine, hips and knees are commonly affected

It is not uncommon to express more pain and stiffness from OA as prednisone is tapered or discontinued, even if symptoms were not as pronounced previously



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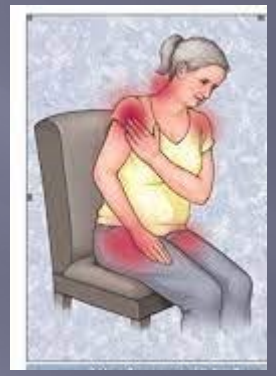

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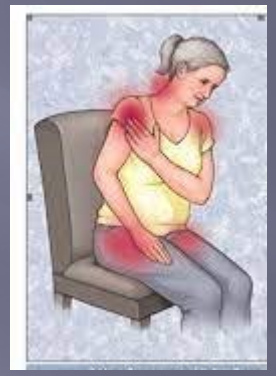


Working diagnosis: PMR

Started on prednisone 20mg po qd

No benefit. Progressive stiffness, weakness and fatigue, failure to thrive

CRP 6.4

Hemoglobin 108

ESR 43

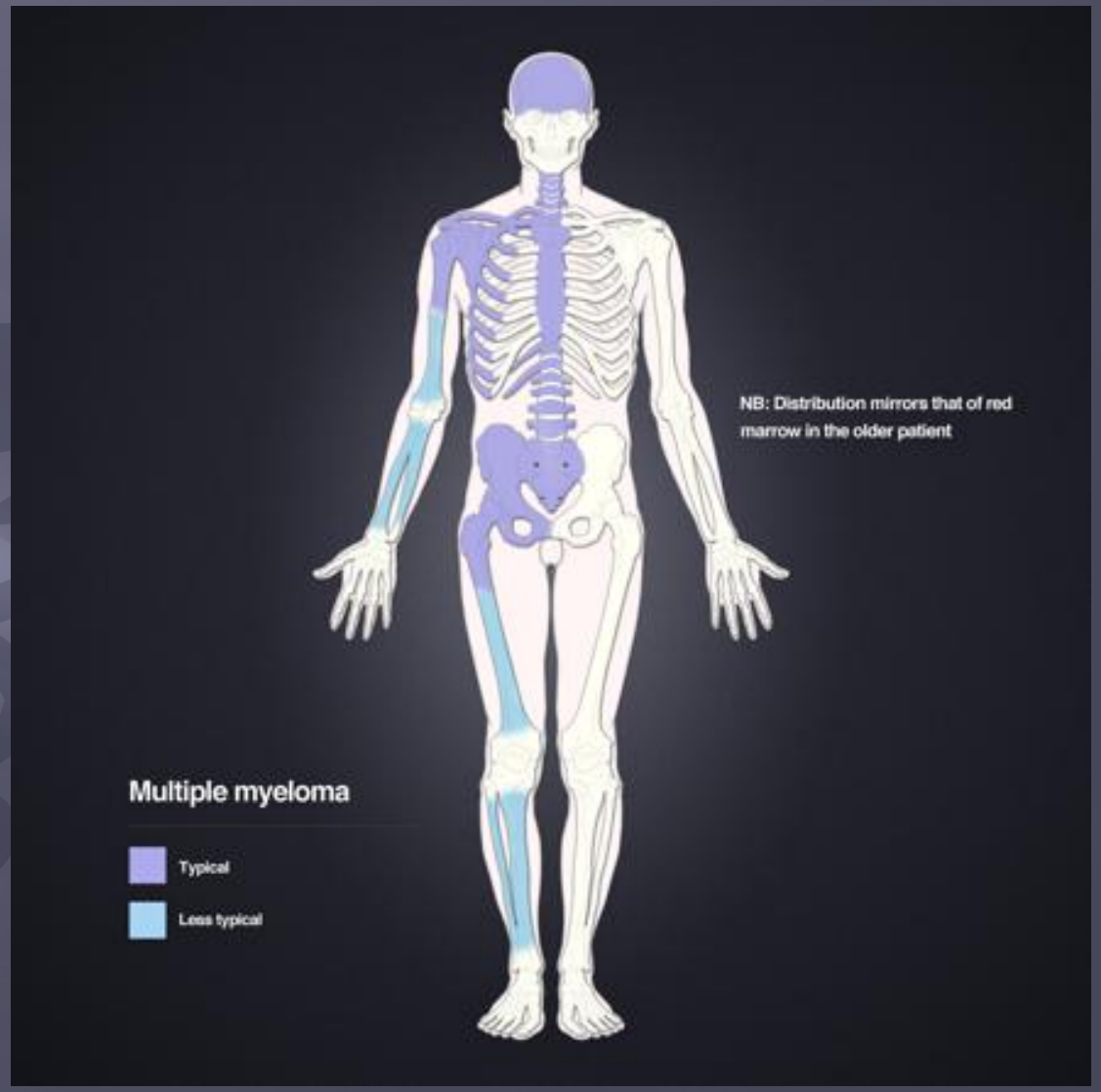
GFR 37 ml/min

Calcium 2.58

Case: V.J.

Malignancy can present with muscle and joint pains resembling PMR

Particularly in refractory disease, consider haematological malignancies and multiple myeloma



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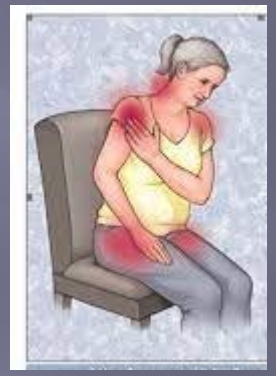

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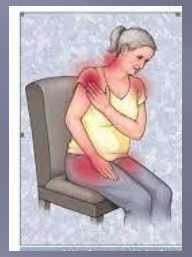
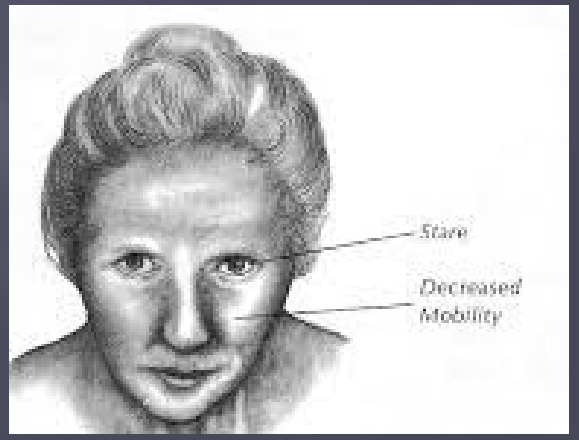


Parkinson's can present with a sense of stiffness proximally in the limbs or neck

causing difficulty with movement and rigid muscles



Noninflammatory but ESR can be misinterpreted based on age and hemoglobin low from other sources of chronic disease

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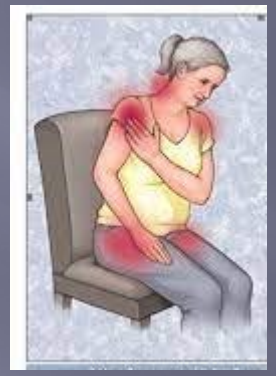

48yo woman PMH breast cancer

Feels generally achey

But in the last 2 weeks has more pain affecting the shoulders and buttock region, worse in the morning with difficulty rising from bed

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ESR 36

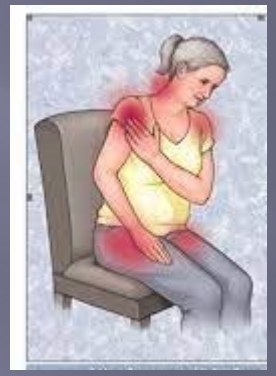
Case: V.J.

PMR is almost exclusively a disease of people over 50 years old

50 years of age or older is considered a criterion for diagnosis

Ankylosing spondylitis can cause neck, back and hip pain and stiffness with inflammatory serology in younger people typically under 45 years old

Case: V.J.



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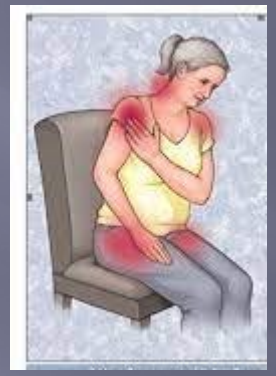


Working diagnosis: PMR

Started on prednisone 20mg po qd

Initial benefit, but now waning with recurrence of girdle pain, lethargy, some loss of appetite and mild weight loss, cramping in her hands impeding use

CRP 40.2

Case: V.J.

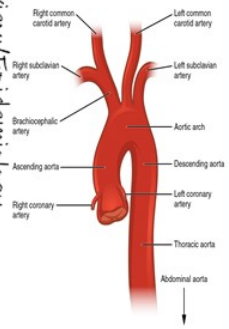
With any “flare” or refractory response, consider alternate diagnoses

PMR can occur with giant cell arteritis

Symptoms can include those of temporal arteritis or extracranial disease

Giant Cell Arteritis

Overview/Epidemiology



GCA is a medium-large vessel vasculitis involving branches of the aorta, especially extracranial branches of the carotid. 10-15% have subclavian or axillary artery involvement.

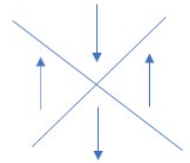
75% >

80% of patients are over 70. Unlikely if age less than age 50

Laboratory findings

95% of patients have an elevated ESR and/or CRP elevation, **a normal ESR has a negative LR of .2**[1]

Lab findings[2]	%
Anemia	35-65
Thrombocytosis	30-60
Elevated alkaline phosphatase	30-60
Anticardiolipin antibodies	30-60
Anti-ferritin antibodies	92



GCA can also cause aortitis leading to aneurysm formation

History/exam findings

Common presenting symptoms:
- 60-90% Headache (can be sudden onset)
- 50% Jaw claudication
- 50% PMR symptoms
- 15-50% Fevers
- 10-20% Visual loss
- 5-15%- Diplopia

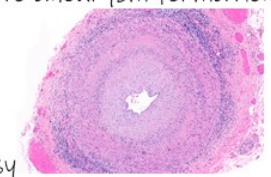
Physical exam findings associated with + temporal artery bx[1]: temporal artery beading +LR- 4.6, prominence +LR- 4.3, tenderness +LR- 2.3

Historical factors associated with positive biopsy[1]:
Jaw claudication-LR 4.2
Diplopia- LR 3.4

@annkumfer

Diagnosis/Treatment

Diagnosis: Temporal artery biopsy
Length of at least **1cm**
Negative TAB does not rule out GCA, if high index of suspicion, biopsy should be repeated on other side.
A patient can be on steroids several weeks before biopsy yield ↓
Can also consider non-invasive imaging of temporal artery



Infiltrate of CD4+ lymphocytes and macrophages, most pronounced in the media

Imaging[3]	Sensitivity	Specificity
Ultrasound w/ doppler	55-100%	78-100%
Contrast MRI of temporal artery	68-89%	73-97%
18F-FDG-PET	77%	66%

Treatment: Prednisone-1 mg/kg/day up to 60mg, do not wait for biopsy results to start steroids +/- aspirin
If visual loss, give methylprednisone 500-1000mg/day x3 days
Relapsing disease, consider tocilizumab (IL-6 receptor antagonist), MTZ can also be used but is less effective

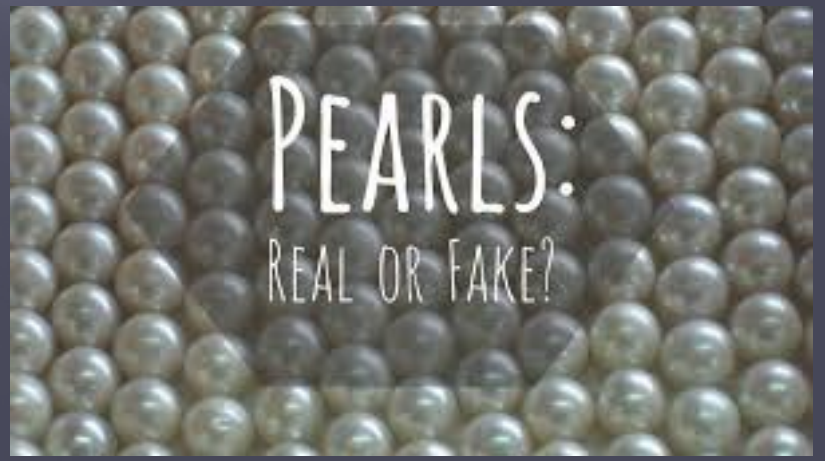
PMR Pearls

Age over 50

Bilateral shoulder aching

Abnormal CRP +/- ESR

Consider mimickers with relapses or refractory disease



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SPECIAL ARTICLE 2015

Recommendations for the Management of Polymyalgia Rheumatica
A European League Against Rheumatism/American College of Rheumatology
Collaborative Initiative

Christian Dejaco,1 Yogesh P. Singh,2 Pablo Perel,3 Andrew Hutchings,4 Dario Camellino,5 Sarah Mackie,6 Andy Abril,7 Artur Bachta,8 Peter Balint,9 Kevin Barraclough,10 Lina Bianconi,11 Frank Buttgereit,12 Steven Carsons,13 Daniel Ching,14 Maria Cid,15 Marco Cimmino,5 Andreas Diamantopoulos,16 William Docken,17 Christina Duftner,18 Billy Fashanu,2 Kate Gilbert,19 Pamela Hildreth,19 Jane Hollywood,2 David Jayne,20 Manuella Lima,21 Ajesh Maharaj,22 Christian Mallen,23 Victor Martinez-Taboada,24 Mehrdad Maz,25 Steven Merry,26 Jean Miller,19 Shunsuke Mori,27 Lorna Neill,19 Elisabeth Nordborg,28 Jennifer Nott,19 Hannah Padbury,19 Colin Pease,6 Carlo Salvarani,29 Michael Schirmer,18 Wolfgang Schmidt,30 Robert Spiera,31 David Tronnier,32 Alexandre Wagner,33 Madeline Whitlock,2 Eric L. Matteson,34 and Bhaskar Dasgupta