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GENERAL PRACTICE SUPERVISION AUSTRALIA

Polyarthritis

Polyarticular arthritis is a common presentation in general practice. Polyarthritis has numerous possible causes, but a systematic approach will help define the probable aetiology and appropriate management plan. Assessment of the patient with polyarthritis comprises three key questions – firstly, is it articular or peri/non-articular?; secondly, if articular, is it inflammatory or mechanical?; and thirdly, if inflammatory, what is the pattern of disease and likely aetiology? Registrars need to develop a sound approach to the assessment of the patient with undifferentiated polyarthritis, including appropriate history taking and examination, and rational use of investigations.
See also the GPSA teaching plans on Gout and Acute monoarthritis.

TEACHING AND LEARNING AREAS		• Differential diagnosis of polyarthritis, including RA, SLE, psoriatic arthritis, viral arthritis, ankylosing spondylitis, gout • Differentiation between mechanical and inflammatory arthritis • Approach to clinical examination, including non-articular aspects (skin, eyes etc) • Red flag clinical features • Rational investigation of polyarthritis • Indication for, and pathways to, specialist referral • Approach to management of patients on biologic agents • Assessment of polyarthritis in children
PRE- SESSION ACTIVITIES		• Read the Therapeutic Guidelines chapter: Undifferentiated arthritis in adults
TEACHING TIPS AND TRAPS		• Spondyloarthropathies are typically pauciarticular, and involve the spine and large joints, whereas RA is usually polyarticular and involves small joints • Enthesitis is characteristic of the spondyloarthritides e.g. plantar fasciitis, insertional Achilles tendinitis, costochondritis • Septic arthritis may present with multiple joints involved • Always ask about non-articular symptoms (current and past) – a systems review is essential • Non-articular conditions, e.g. tendinitis or bursitis, commonly demonstrate a normal passive ROM and reduced painful active ROM on examination • ANA is highly sensitive but poorly specific for SLE - ANA testing should be limited to patients with symptoms and/or signs of a rheumatic disease • The higher the ANA titre, the greater the likelihood of autoimmune disease • Testing for anti-dsDNA antibodies should occur only after detecting a positive ANA in patients with symptoms consistent with SLE • Early diagnosis and prompt treatment may avert or minimise permanent joint damage and disability –hence urgent and early referral is essential • RA is an independent risk factor for CVD and and CVD accounts for 40% of all deaths in patients with RA – CVD risk assessment and management is essential • Non-pharmacological management and exercise are crucial aspects of management in rheumatological disease
RESOURCES	**Read**	• 2017 Aust Prescriber article Managing the drug treatment of rheumatoid arthritis
	Watch	• The rheumatological examination of the hands
FOLLOW UP & EXTENSION ACTIVITIES		• Undertake the clinical reasoning challenge and discuss with supervisor

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Clinical Reasoning Challenge

Susie Horner, a 41-year family lawyer, presents to you with a 3-month history of low back pain, L knee pain and swelling, R ankle pain, and heel pain. She also complains of gritty irritated eyes. Susie has no significant PMH. She has been taking ibuprofen for symptom relief but otherwise takes no regular medications. She is a non-smoker and drinks minimal alcohol.

QUESTION 1. You are concerned about an inflammatory arthritis. What additional key features on history would you seek to support a diagnosis of an inflammatory arthritis? List as many as appropriate.

Susie describes features of her knee and back pain in keeping with an inflammatory arthritis. However, there are no other specific positive features on further history taking.

QUESTION 2. What are the MOST IMPORTANT aspects of clinical examination to support a diagnosis of an inflammatory arthritis? List as many as appropriate.

The examination of Susie's joints suggests an inflammatory arthritis.

QUESTION 3. What is the single most likely differential diagnosis?

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ANSWERS

QUESTION 1

You are concerned about an inflammatory arthritis.

What additional key features on history would you seek to support a diagnosis of an inflammatory arthritis? List as many as appropriate.

- Pain and stiffness that is worse after rest and relieved by activity
- Morning stiffness lasting longer than one hour
- Symptomatic relief from NSAIDs
- Presence of symptoms of joint inflammation (swelling, redness, heat)
- Extra-articular features suggestive of specific inflammatory causes – history of skin rashes, nail changes, GI illness, genitourinary symptoms, uveitis, recent viral illness
- Constitutional symptoms – fever, weight loss, fatigue, night sweats
- Family history of inflammatory arthritis or associated conditions

QUESTION 2

What are the MOST IMPORTANT aspects of clinical examination to support a diagnosis of an inflammatory arthritis? List as many as appropriate.

- Presence of synovitis – boggy swelling, warmth, erythema
- Painful active and passive ROM of affected joints
- Extra-articular features suggestive of specific causes – skin and nail changes (psoriasis), nodules (RA), tophi (gout), positive Schober's test (AS), eye signs

QUESTION 3

What is the single most likely differential diagnosis?

- Psoriatic arthritis
  - Susie's presentation is most consistent with a spondyloarthropathy – an asymmetrical oligoarthritis affecting the large joints of the lower limbs; enthesitis (likely plantar fasciitis); back pain (likely spondylitis); and irritated eyes (likely conjunctivitis).
  - In the absence of features of enteropathic or reactive arthritis, and with ankylosing spondylitis most commonly presenting in men under the age of 40, psoriatic arthritis is the most likely spondyloarthropathy.
  - In 15% of patients with psoriatic arthritis, the arthritis precedes the skin rash by more than 12 month.
  - Other differentials include RA and SLE but would more typically present with a symmetrical small joint arthritis.

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