SEXUALLY -– ASSOCIATED (ACQUIRED) REACTIVE ARTHRITIS (SARA- ALSO ReA)

Definition:

Spondyloarthropathy (generally affecting 1-5 lower limb joints in an asymmetrical distribution) associated with lower genital tract infection (urethritis and/ or proctitis in men, mucopurulent cervicitis and/ or proctitis in women. Objective signs of SARA are seen in 0.8-4.0% of cases of urethritis and cervicitis. This includes sexually-associated triad syndrome (urethritis, arthritis and conjunctivitis, with or without the classically associated cutaneous or mucous membrane lesions which are well-described elsewhere). SARA appears to occur over ten times more frequently in men than women. Possession of HLA-B27 increases susceptibility to SARA by up to 50 fold and predicts a more aggressive arthritis. Non-sexual infections are aetiological agents in a similar clinical spectrum reactive arthropathy (ReA)

Clinical Features:

- A past or family history of spondyloarthritis or iritis, psoriasis, inflammatory bowel disease or SAPHO (synovitis, acne, pustulosis, hyperostosis, osteitis)
- Sexual intercourse, usually with a new partner, within 3 months prior to the onset of arthritis

Diagnosis:

Diagnosis in women is difficult, due to the absence of well validated clinical criteria for diagnosis of “mucopurulent cervicitis.” Sexually-acquired reactive arthritis (SARA) is most strongly associated with infection with C trachomatis, but *N gonorrhoeae*, *U urealyticum* and other genital tract pathogens and commensals have also been suggested as causal.

- All patients should be screened for *C trachomatis*, *N gonorrhoeae*, syphilis, and HIV.
- Clinical and microscopic features of urethritis in men or mucopurulent cervicitis and proctitis (determined by sexual history) should be carefully sought.
- A multidisciplinary approach should be pursued with a rheumatologist and an ophthalmologist to exclude other rheumatological diseases and exclude ophthalmic complications. This may include acute admission or urgent clinic review.

SYMPTOMS	SIGNS
Pain +/- swelling of joints (usually<6)	Urethritis, urethral discharge, epididymo-orchitis (male) – (nb proctitis|)
Urethral discharge/ dysuria (men)	Mucopurulent cervicitis +/- contact bleeding (female)
Pain/ stiffness at entheses (posterior and plantar aspects of the heels)	Tenderness at sites of tendon or fascial attachments – especially Achilles tendon
Finger/toe pain and swelling	Joint crepitus due to tenosynovitis
Irritable and red eyes	Conjunctivitis – rarely iritis Loss of visual acuity
Systemic symptoms (malaise/ fatigue/ fever)	Psoriasiform rash, circinate balanitis, keratoderma blenorrhagica
Low back pain and stiffness	Pain on direct sacral pressure

- Ask about joint/eye/skin symptoms in patients with urethral symptoms.
- Full STI screening inc HIV
- FBC, CRP and ESR
- Urinalysis to check for renal pathology, MSSU
- Recognise atypical manifestations – not everyone has the classic 'triad'. These include guttate psoriasis, geographic tongue, tenosynositis and enthesiopathy (point tenderness at tendon insertion) rather than reactive arthritis - see table.
- Exclude disseminated gonococcal infection/septic gonococcal arthritis if patient is unwell or has significant joint effusion (GC less likely to cause ReA than Chlamydia).

Management:

Constitutional symptoms

- Rest
- Non-steroidal anti-inflammatory drugs (NSAIDs) Assess gastro-intestinal risk for haemorrhage potential.
- Assess pregnancy risk as NSAIDs are associated with sub-fertility, premature closure of PDA in fetus, oligohydramnios and delayed and prolonged labour.

Genital infection

- Standard antibiotic therapy regimens should be prescribed if any specific genital infection is diagnosed (avoid UPSI including oral sex until PN/CT completed) – see relevant section of guidelines. (Short) Standard course antibiotic treatment of the genital infection is not thought to influence the natural history of the acute non-genital clinical features, but may reduce the risk of recurrent arthritis.

Arthritis

- Rest and NSAIDs
- Discuss with senior clinician and consider rheumatology referral if patient has swollen or acutely painful joint(s).
- If patient needs acute admission, phone the 1st on medical registrar in the appropriate hospital. (QEUH switchboard: 0141 201 1100; GRI switchboard: 0141 211 4000; RAH switchboard: 0141 887 9111; IRH switchboard: 01475 633 777).
- For those not requiring hospital admission, send an urgent SCI gateway referral to the Rheumatology team at the patient's local hospital; or call the rheumatology team for advice (switchboard numbers as above).
- Second line investigations and therapies should only be undertaken by a rheumatology specialist. These include Synovial fluid analysis, intra-articular or systemic corticosteroids, sulphasalazine, methotrexate, azathioprine.
- Pregnancy and breast-feeding require special attention regarding therapeutic decisions – refer to appropriate specialist.

Mucous membrane & skin lesions

- No treatment for mild lesions
- Most other patients are likely to benefit from dermatological referral
- Keratinolytic agents, Vitamin D3 Analogues and low potency topical steroids in mild to moderate cases

Eye lesions

- Refer urgently to ophthalmology for slit-lamp examination: treatment of uveitis is likely to include corticosteroid eye drops and mydriatics to avoid cataract formation. (Gartnavel General Hospital, Glasgow, Eye Dept – 0141 301 7847 direct booking to emergency clinic (Mon-Sat 0830-1700)

- Eye problems in the Clyde area should be sent to Ophthalmology out patients at the RAH between 9am and 5pm. Out of hours, refer to A&E. RAH: 0141 887 9111 (switchboard number)
- In Inverclyde, eye problems should go at all times to A&E from where the appropriate Ophthalmologist will be contacted.

Post inflammatory pain and fatigue

- Explanation and patience
- Low dose tricyclic drugs, such as amitriptiline

Partner Notification:

Dependent on the genital infection diagnosed – see relevant section of the guidelines.

Advice:

Advise client to avoid potentially "trigger infections" in future, urogenital or enteric. Discuss safer sexual practices and importance of food hygiene. Avoid sexual intercourse (inc oral) until they and their partner have been treated, and any relevant follow up for any genital infections completed.

Follow up:

Dependent on the genital infection identified. Extragenital manifestations should be followed up under relevant specialist

References:

European Guideline on the management of sexually acquired reactive arthritis 2014 https://iusti.org/regions/Europe/pdf/2014/IntJSTD_AIDS-2014-Carlin-901-12.pdf [Accessed June 2019]

BASHH United Kingdom National Guideline on the Management of Sexually Acquired Reactive Arthritis 2008 https://www.bashhguidelines.org/media/1064/1772.pdf [Accessed June 2019]