Reactive arthritis

(spondylo)arthritis (ReA)

Refers to a form of non purulent arthritis, often accompanied with clinical features keeping with all SpA

that appear shortly after certain infections of the genitourinary tract or GIT.

"The classical triad of Reiter's disease constitutes non-specific urethritis, conjunctivitis and reactive arthritis".

Reactive arthritis can follow or triggered by:

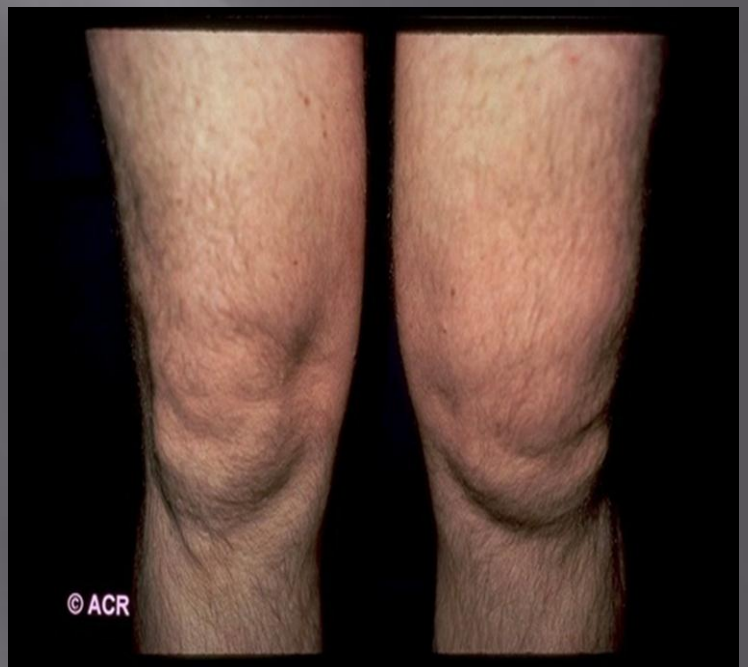
Bacterial dysentery. (Salmonella, Shigella, Campylobacter, Yersenia).

Sexually acquired reactive arthritis (SARA)with Chlamydia.

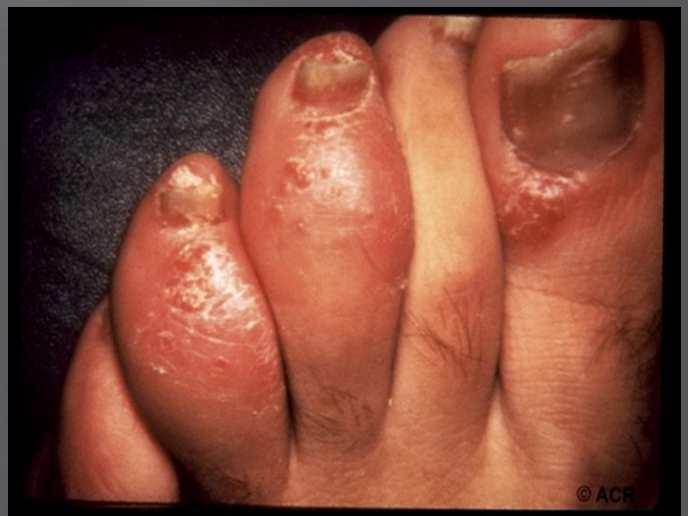
SARA is considered a disease of young men, with ratio of male/female 15:1. HLA B27 is +ve in Reiter's disease in up to 90% and when there is sacroiliitis, uveitis or balanitis. Peak incidence between age 16-35 years but can occur at any age. Reactive arthritis become most common in people with AIDS.

Clinical features:

- Onset usually acute, with peripheral arthritis, usually,assymetric, oligoarticular, mainly joints of lower limbs knees, ankles , MTP joints , 1-3 weeks following dysentery or sexually acquired genitor-urinary tract infection



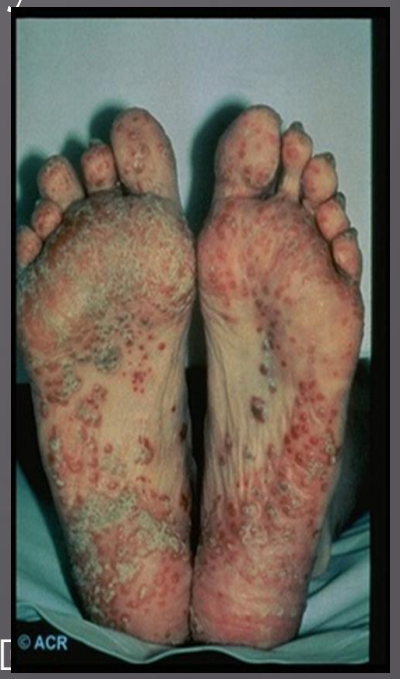
. Dactylitis “sussage” digit can occur.
- Conjunctivitis and/or non specific urethritis occur in about 50%. Less classical attacks are common, with insidious onset of single joint involvement, minimal or absent features of conjunctivitis and urethritis and some times there is no clear history of trigger illness.
- Achilles tendonitis and plantar fasciitis may occur. Constitutional systemic features like fever, malaise and wt loss may occur.



- The first attack can be self – limited with spontaneous remission with in 2-4 months. But but recurrent or chronic arthritis can develop and about 10% still
- have active disease 20 years after the initial presentation. and it is not necessary to preceded by infection.
- Some of them 15-20% develop progressive spondylitis with back pain and stiffness due to sacroiliitis.

Extra-articular features:

In addition to conjunctivitis and urethritis mainly in first attack.



Circinate balanitis and keratoderma blennorrhagica are considered a characteristic skin lesion and can give a clue for diagnosis in atypical cases.

Nail dystrophy.

Mouth ulcer shallow ,red, and may occur on buccal mucosa, tongue, palate and they are painless, transient "only a few days".

Uveitis: Especially up to 30% in recurrent and chronic type. While rare in first episode. other features are rare which include:

-Cardiac: Aortic incompetence, conductive defect, pleuro-pericarditis.

Peripheral neuritis, CNS :fits, meningo-encephalitis.

Investigation:

the diagnosis usually made on clinical background

Joint aspiration is needed especially in single to exclude infectious and crystal arthritis.

Synovial fluid, inflammatory containing giant multinucleated macrophage "Reiter's cells".

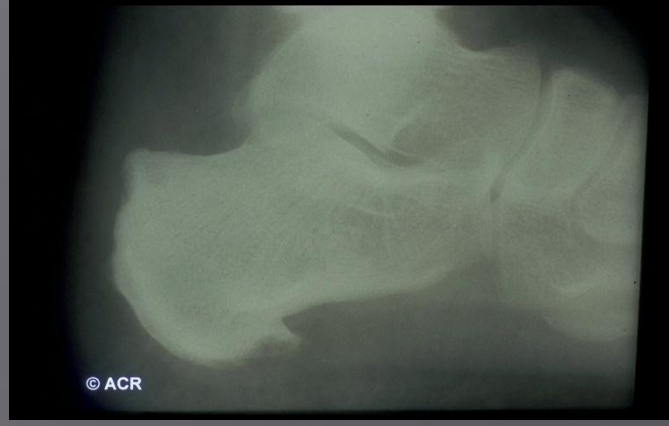
ESR,CRP are raised in acute attack.

RF, ACPA and ANF are negative.

Urethritis could determined by examinant of void specimen "two glass test".

Stool culture, apart from salmonella infection, usually negative.

Previous bacillary dysentery could be tested by serum agglutinin test.



Radiographic changes:

No changes in 1st acute attack apart of soft tissue swelling.

In recurrent or chronic form: Periarticular osteopenia, j. space narrowing, marginal proliferative erosion.

Periostitis of metatarsal, phalanges.

Fluffy calcaneal spur.

In contrast to AS :Sacroiliac involvement usually asymmetrical and may unilateral, and coarse asymmetrical , non marginal syndesmophyte

Management:

In 1st acute attack symptomatic treat. by rest , NSAID and analgesia.

Joint aspiration, with intra art. corticost inj. “after exclusion of septic arthritis”. There is no convincing evidence for the use of antibiotics unless a triggering infection is identified

If chlamydial urethritis is diagnosed, it should be treated empirically with a short course of doxycycline or a single dose of azithromycin.

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DMARD (methotrexate or salazopyrine) should be considered in severe progressive, persistent marked symptoms, recurrent form and these with keratodermablenn.

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- Uveitis must be treated urgently as a medical emergency requiring local or systemic steroid by ophthalmologist.
- In severe case recalcitrant to DMARDs and those with progressive spondylitis , Anti TNF therapy should be considered .

- Spondylitis, chronic erosive arthritis, recurrent arthritis and uveitis are major causes of long-term morbidity.

Psoriatic Arthritis

This term describes a variety of different patterns of arthritis and enthesitis seen in people with psoriasis or with family history of psoriasis.

7-20% may be up to 40%of individuals with psoriasis develops psoriatic arthritis. It occurs mainly between age 25-40 years old.
Sometimes the arthritis predate psoriatic lesion. Occasionally both occur synchronously.

Clinical Features:

Five main arthritis patterns can be presented as psoriatic arthritis:

-*Asymmetrical inflammatory oligoarthritis*: affecting lower and upper limbs.

Association of synovitis with periarticular tenosynovitis, enthesitis gives a characteristic appearance when affecting the digit "**Sausage digit**" or **datylitis.**

-*Symmetrical polyarthritis*: especially in women, is similar to RA but absence of Rh. Nodules and extra-articular features of RA, persistent absence of RF, characteristic radiological features and typical DIP joint involvement, and may associated with spondylitis as well, in addition to presence of Ps. Skin and/or nail lesion, "all of these points are important to differentiate psoriatic arthritis from RA".

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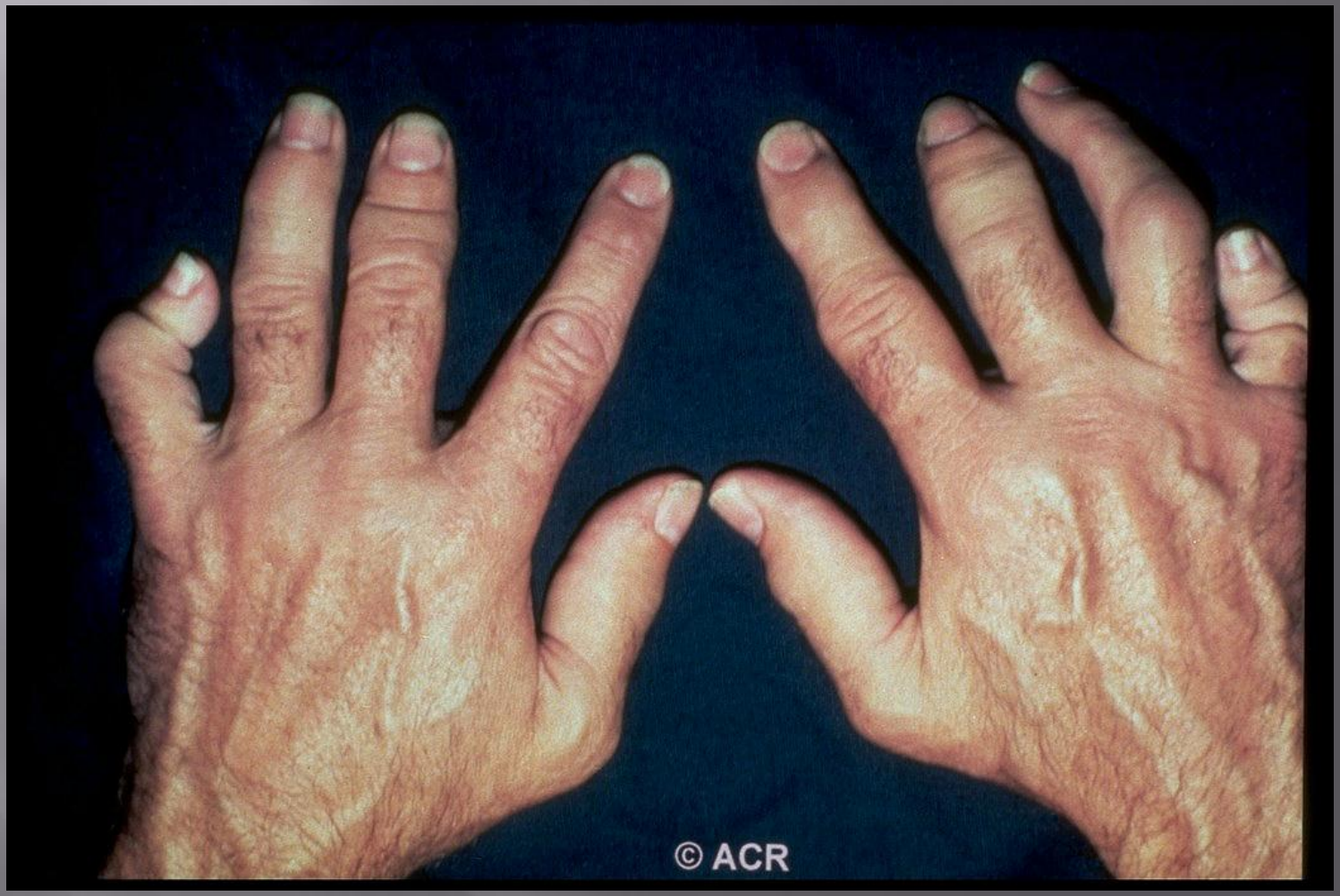
- Predominantly DIP joint: Arthritis usually in men, mainly associated with nail psoriasis.
- Psoriatic Spondylitis, either alone or associated with peripheral arthritis.
- Arthritis Mutilans: erosive form, affecting mainly fingers and toes, causes severe bone and cartilage loss with bone shortening. The overlying skin invaginated, telescoped (so traction can pull the digit back to its original length).
- Enthesitis predominant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Extra-articular Features:

- *Psoriatic skin lesion.*
- *Psoriatic nail lesion.*
- *Eye: conjunctivitis, Uveitis mainly in patient with HLA-B27, especially with sacroiliitis and spondylitis.*

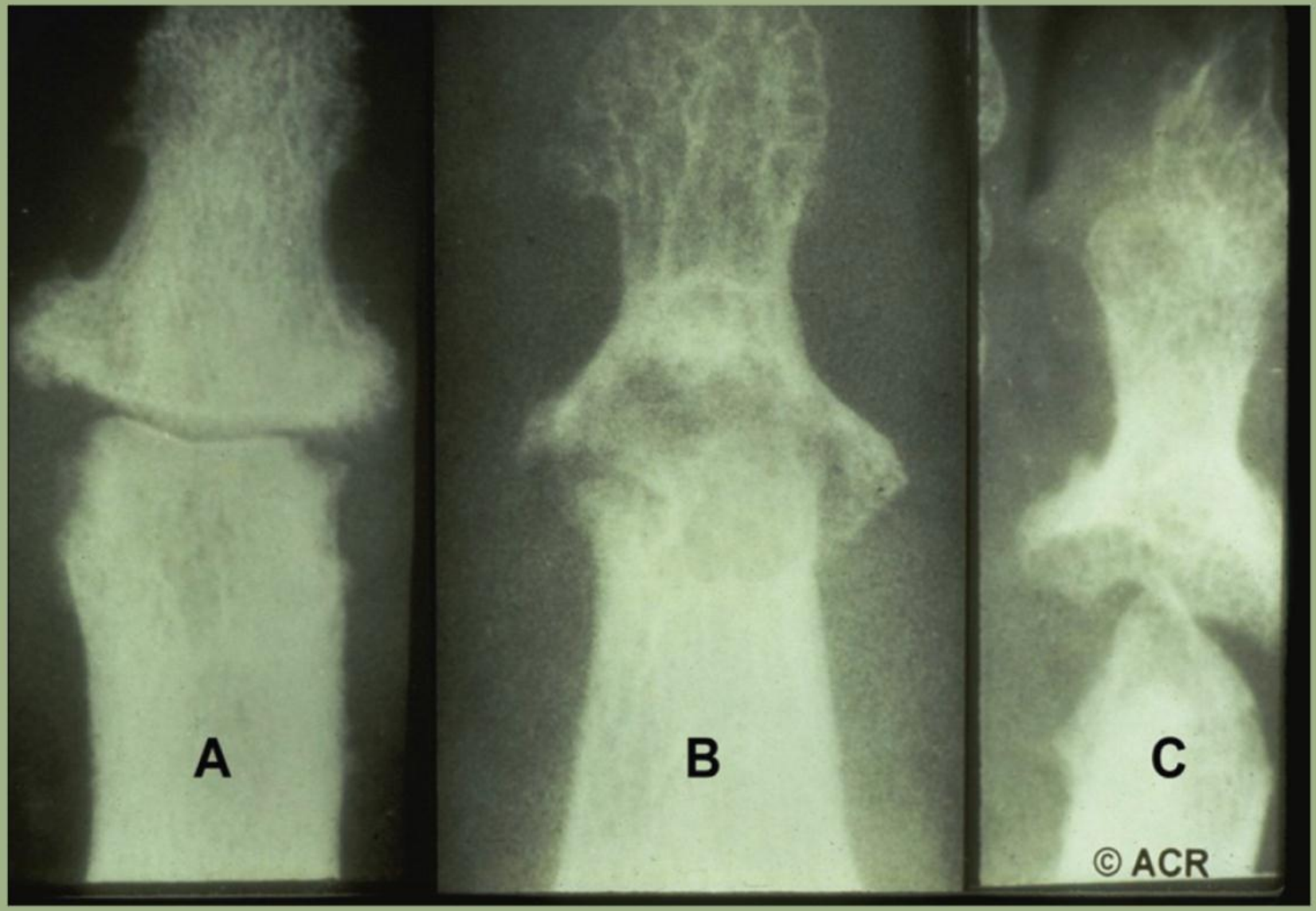
Investigation:

ESR and CRP may be raised, especially in active polyarticular.

autoantibodies are generally absent.

X-ray findings may be normal, or in persistent synovitis may show marginal proliferative erosions , sometimes give an appearance of "pencil in cup", also the bone density is maintained and increased in bone sclerosis giving the appearance of "ivory phalanx".

Radiological changes in spondylitis and sacroiliitis are mostly similar to that of axial involvement of reactive arthritis . MRI and Doppler ultrasound are employed to detect early synovial inflammation and enthesitis.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Management:

-Symptomatic, simple analgesia, NSAIDs.

- intra-articular injection of corticosteroid in florid synovitis.

-Regular exercises to maintain joint mobility and avoid prolong rest and splintage because of tendency to fibrous or bony ankylosis.

-Similar advices and physiotherapy and exercise, in axial involvement as in AS.

-Therapy with DMARDs should be considered for persistent synovitis unresponsive to conservative treatment. Methotrexate is the drug of first choice because it may also help skin psoriasis, but other DMARDs may also be effective, including sulfasalazine, ciclosporin and leflunomide. Monitoring of DMARD is needed with special attention to liver function as abnormalieies can associated with PsA..

- Anti TNF-α agent are highly effective for severe skin and joint disease. Other biological treatments, such as ustekinumab, Is used, which target the IL-12/23 receptor.
- Ustekinumab is highly effective in the treatment of psoriatic skin disease and is often effectve in PsA.
- Anti-malarial should be avoided because it can cause exfoliative
- Apremilast is an oral small-molecule inhibitor
- effective in PsA when
- DMARD therapy fails, although it appears to be less efficacious
- than biologic treatment. Adverse effects include weight loss,
- depression and suicidal ideation. reaction.

Arthritis associated with Inflammatory Bowel Disease (Enteropathic (spondylo)arthritis):

Two patterns of arthritis are associated with ulcerative colitis and Crohn's disease:

Enteropathic peripheral arthritis: 12% in ulcerative colitis and 20% in Crohn's disease. Lower large joints are commonly affected, but the wrist and small joints of toe and finger of hand can be affected also.

The arthritis follow the underlying bowel disease activity, so it usually appears with the exacerbation of bowel disease, also it cease after colectomy of U.C, Extra-articular features: aphthous oral lesion, iritis and erythema nodosum.

Axial(Sacroiliitis 16% and AS 6%) : especially in **HLA-B27** patients, can predate or follow bowel disease . Here the course it is independent of bowel disease activity.