Scholars Journal of Applied Medical Sciences
Abbreviated Key Title: Sch J App Med Sci
ISSN 2347-954X (Print) | ISSN 2320-6691 (Online)
Journal homepage: https://saspublishers.com

OPEN ACCESS

Medicine

Reactive Arthritis

Dr. Faizan Ahmad[1*], Dr. Sohaib Ali[2]

[1]MBBS, MRCGP UK, GP NHS UK
[2]MBBS, MRCGP UK

DOI: 10.36347/sjams.2024.v12i05.010 | **Received:** 03.04.2024 | **Accepted:** 07.05.2024 | **Published:** 10.05.2024

***Corresponding author:** Dr. Faizan Ahmad
MBBS, MRCGP UK, GP NHS UK

Abstract **Case Report**

Management of Reactive arthritis in Primary care.

Keywords: Reactive arthritis, Reason of study, definition, clinical case, triggers, symptoms, causes, differential diagnosis, Investigations and treatment of reactive arthritis.

Reason of Study

Reactive arthritis often goes misdiagnosed or undiagnosed in primary care settings. Aim of this study is to make clinicians aware of signs and symptoms, diagnosis, differential diagnosis and management of this condition.

Definition:

Reactive arthritis is a condition that causes redness and swelling in various joints in the body, especially the knee, feet, hips, toes and ankles. It is defined as a joint inflammatory process in which the infection is known, originating either in the urinary or digestive tract, but where bacterial product is not detected in the joint.

Case Study

I attended a 46-year-old male who presented with 10-day history of viral gastroenteritis. His diarrhea settled but it was followed by swelling and redness of right knee. He did not have a history of injury or trauma. His work as mechanic involved heavy lifting and working on his knees. He wondered if that could be the cause of his symptoms. He had been remarkably healthy up till now with no serious illnesses or operations. He took no regular medications. On further questioning, he had no rashes, eye problems, mouth ulcers, urinary symptoms or weight loss. He did not smoke or drink and lived with his wife. He had no history of Psoriasis in the family. I discussed the case with a senior GP colleague and made a diagnosis of reactive arthritis.

Triggers:

It can be triggered after an infection like gastroenteritis, sexually transmitted infection and food poisoning.

Prevalence:

It is more common in men and women, between the ages of 20 to 40 and usually occurs 2-4 weeks after a genitourinary (male: female, 9:1) or enteric (male: female, 1:1) infection. Prevalence is about 0.1% in the general population, with an annual incidence of 10 cases per 100,000 inhabitants [1].

Symptoms:

Most common symptoms of reactive arthritis include:

1. Pain, stiffness, swelling in the joints and tendons, mostly in knees and hips.
2. Genital tract infection like UTI symptoms including dysuria or discharge from the penis or vagina.
3. Eye infections: It can also present with eye infections like redness, pain, discharge, conjunctivitis and inflammation of the iris.

Iritis: In case of iritis, consult an emergency doctor straight away. Symptoms of iritis include redness and blurred vision, photophobia and very painful eye movements.

Causes of Reactive Arthritis:

Exact cause of Reactive Arthritis is often difficult to determine because of the lack of a diagnostic criteria, difficulty in identifying, recognizing and treating the causative organisms. The genetic variability of HLA-B27 and the presence of local environmental factors also

play a role. Any infectious microorganism can result in reactive arthritis, but those more commonly involved are Chlamydia trachomatis, Yersinia, Salmonella, Campylobacter and Streptococcus. Majority of clinical presentations fall under the following categories:

1. Sexually transmitted infections like Chlamydia or Gonorrhea.
2. Infection of bowels like Viral Gastroenteritis.
3. Upper respiratory tract infections such as Glandular fever.
4. Genetic causes: Patients who have a gene called HLA-B27 are much more likely to get reactive arthritis.

Differential Diagnosis:

Differential Diagnosis of reactive arthritis include:

1- **Rheumatoid arthritis**: In rheumatoid arthritis, patients mainly have inflammation of small joints like hands. Positive anti cyclic citrullinated peptide antibodies (anti CCP) and positive rheumatoid factor (RA) are used to differentiate between rheumatoid arthritis and reactive arthritis.

2- **Knee bursitis**: Bursitis is usually associated with over-stressing or repetitive use of the areas around joints. Examination reveals a localized tender and inflamed swelling which may be infected in some cases. Joint itself is spared.

3- **Fibromyalgia**: Suspect if numerous small myofascial trigger points and physical symptoms are present.

4- **Infectious arthritis**: Suspect if symptoms are ongoing and not getting resolved. It can be confirmed by the presence of infection somewhere in the body and identification of the infectious agent or microbial product in the joint. Joint range of motion is restricted and there may be systemic signs. Seek urgent Orthopedics referral in case of joint infection.

5- **Osteoarthritis**: Suspect in case of old age, history, examination and x-ray findings.

Investigations:

Laboratory results are completely nonspecific. The ESR and CRP are elevated in at least 50% of patients. Further investigations can be done to rule out the underlying cause.

- **Bloods**: Blood tests include FBC, CRP, anti CCP, ESR and LFTs to rule out underlying joint diseases like rheumatoid arthritis, Gout or septic arthritis.
- **X-ray**: X-ray of joints can give information about osteoarthritic changes or septic changes in the GOUT.
- **Ultrasound**: Ultrasound can be done to rule out joint effusion and ultrasound guided aspiration can give information about septic joint or gouty arthritis.
- **Genital swabs**: urethral and vaginal swabs can rule out STI that can trigger reactive arthritis.

Treatment:

Treat the cause of reactive arthritis:

- **Anti inflammatory**: vast majority of affected patients with reactive arthritis respond to treatment with nonsteroidal anti-inflammatory drugs (NSAIDs), such as Ibuprofen or Naproxen, but a significant proportion requires treatment with a second line of disease modifying agents (DMARDS).
- **Biological agents**: especially TNF-blockers, have great impact on the treatment of refractory reactive arthritis patients [2].
- **STI treatment:** If sexually transmitted infections are the underlying cause, then treat as per swab results. Patients should be referred to local sexual health clinics for contact tracing and further management of sexually transmitted infections. Evidence showing that the combined use of antibiotics may induce complete remission and cure Chlamydia induced reactive arthritis [3].
- **Referral to secondary care**: Patient should be referred to a rheumatologist in case of severe disease, refractory cases and if not responding to first line treatment in primary care.

Prognosis:

Prognosis is variable:

- Most patients remain symptomatic, with joint pain, back pain, ankylosing spondylitis and development of long-term (15-20 years) disease [3].
- Another group goes into permanent remission and a minority has a relapsing course.
- Certain risk factors for poor prognosis: nature of the infection, persistent infection with Chlamydia, the presence of HLA-B27 (axial involvement, ocular), male gender, recurrent arthritis and a family history of the disease.

REFERENCES

1. Colmegna, I., Cuchacovich, R., & Espinoza, L. R. (2004). HLA-B27 associated reactive arthritis (ReA): pathogenic and clinical considerations. *Clin Microbiol Rev.*, *17*, 34863.
2. Meyer, A., Chatelus, E., Wendling, D., Berthelot, J. M., Dernis, E., Houvenagel, E., ... & Club Rhumatisme et Inflammation. (2011). Safety and efficacy of anti–tumor necrosis factor α therapy in ten patients with recent-onset refractory reactive arthritis. *Arthritis & Rheumatism*, *63*(5), 1274-1280.
3. Espinoza, L. R., & García-Valladares, I. (2013). Of bugs and joints: the relationship between infection and joints. *Reumatología Clínica (English Edition)*, *9*(4), 229-238.

-NICE CKS https://cks.nice.org.uk/topics/rheumatoid-arthritis
-NHS UK https://www.nhs.uk/conditions/reactive-arthritis/ -
-Patient.co.uk https://patient.info/doctor/reactive-arthritis-pro