

RHEUMATOLOGICAL MANIFESTATIONS OF CHIKUNGUNYA

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Trinidad
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REFERENCES

- ▶ CDC Website
- ▶ Post-Chikungunya Chronic Arthritis
 - ▶ G Narsimulu* , Naga Prabhu**
 - ▶ © JAPI • february 2011 • VOL. 59
- ▶ Impact of Chikungunya Virus Infection on Health Status and Quality of Life: A Retrospective Cohort Study
 - ▶ Man-Koumba Soumahoro , Patrick Gérardin, Pierre-Yves Boëlle, Joelle Perrau, Adrian Fianu, Jacques Pouchot, Denis Malvy, Antoine Flahault, François Favier, Thomas Hanslik
 - ▶ Published: November 11, 2009
 - ▶ DOI: [10.1371/journal.pone.00007800](https://doi.org/10.1371/journal.pone.00007800)
- ▶ Personal experience

EXPERIENCE

- ▶ Practising rheumatology since 2000
- ▶ SMO – Rheumatology, SWRHA since 2012
- ▶ Managing patients with musculoskeletal symptoms attributable to chikungunya infection since 2014

AEITIOLOGY

- ▶ An arboviral alphavirus
- ▶ First reported from Tanzania in 1952
- ▶ So named from Makonde root verb kungulya meaning “ that which bends up”
- ▶ Refers to the posture adopted by the affected person due to rheumatological manifestations of the disease.

IMPORTANT POINTS

- ▶ Incubation period (IP) – 3 to 7 days
- ▶ The IP can vary from 1 to 12 days
- ▶ Acute symptoms usually resolve in 7 to 10 days
- ▶ Persons at risk for severe symptoms
 - ▶ Neonates exposed intrpartum
 - ▶ Older adults (>65 years)
 - ▶ Persons with underlying medical problems (DM, HTN, cardiovascular disease)

AEITIOLOGY OF MUSCULOSKELETAL SYMPTOMS IN CHIKV PATIENTS

- ▶ Not well defined
- ▶ Can target various cell types in the human body to produce its symptoms
- ▶ “Can damage collagen and alter connective tissue metabolism in cartilage and joints to produce severe acute arthritis”
- ▶ “Can cause atrophy and necrosis of scattered muscle fibres”
- ▶ These phenomena may lead to chronic symptoms

MUSCULOSKELETAL SYMPTOMS

- ▶ Arthralgia – joint pain
- ▶ Arthritis – joint inflammation
- ▶ Myalgia – muscle pain
- ▶ Enthesopathy – inflammation of the insertion of ligaments
- ▶ Tendinitis – inflammation of the insertion of tendons
- ▶ Sudden onset fever, rash and arthralgia
- ▶ Predominant symptom is M/S ranging from arthralgia to arthritis

ARTHRALGIA

- ▶ May occur immediately after or at the same time as the fever
- ▶ Worse on mornings and after prolonged immobility
- ▶ Improved by light exercise
- ▶ Worsened by strenuous and aggressive movements
- ▶ Patients may feel crippled
- ▶ Usually bilateral & symmetrical
- ▶ Mainly affects ankles, wrists, elbows and small joints of the hands/feet
- ▶ Large joints like the knees and shoulders may also be affected
- ▶ Migratory polyarthritis with synovitis
- ▶ Tends to affect joints with preceding trauma and degeneration

SEQUELE TO MUSCULOSKELETAL SYMPTOMS

- ▶ The majority of patients would have complete resolution of symptoms
- ▶ Severity of the initial symptoms determines the post-infective symptoms
- ▶ Some would have:
 - ▶ Episodic stiffness and pain
 - ▶ Persistent stiffness with no pain
 - ▶ Persistent painful restriction of joint symptoms
- ▶ May develop post-chikungunya chronic arthritis (PCCA)
 - ▶ Not well defined
 - ▶ No diagnostic criteria

DIFFERENTIAL DIAGNOSIS

- ▶ Chikungunya
- ▶ Dengue
- ▶ Post-infectious arthritis
- ▶ Rheumatologic disorders
 - ▶ Rheumatoid arthritis
 - ▶ Psoriatic arthritis

DIAGNOSTIC TESTING

- ▶ Antigen testing within the first 5 days
- ▶ Antibody testing after 5 days
- ▶ FBC – lymphopenia
- ▶ Kidney function tests
- ▶ Liver function tests
- ▶ Inflammatory markers
 - ▶ ESR & CRP
- ▶ Immunology tests
 - ▶ RF and anti CCP, +/- others

TREATMENT

- ▶ Fluids
- ▶ Rest
- ▶ Paracetamol
- ▶ Non-steroidal anti-inflammatory drugs (NSAIDs)
- ▶ Corticosteroids
- ▶ Physiotherapy

PERSONAL EXPERIENCE

- ▶ PPI
- ▶ Low dose steroids on mornings
 - ▶ Prednisolone
 - ▶ Calcort
- ▶ NSAIDs
 - ▶ On evenings if long acting
 - ▶ Twice daily if short acting
- ▶ Supplementation with paracetamol/tramadol/Tramacet/Panadiene

FUTURE CONSIDERATION FOR TREATMENT

- ▶ disease modifying anti-rheumatic drugs (DMARDs)
 - ▶ Sulphasalazine
 - ▶ Methotrexate

THANK YOU

QUESTIONS??????