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RHEUMATIC DISORDERS & ITS HOMOEOPATHIC MANAGEMENT: A LITERATURE REVIEW

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Introduction:
There are more than 100 subtypes of rheumatic illnesses. 54 million persons have been diagnosed with the disease in the United States alone. Joint inflammation, tissue deterioration, and autoimmune dysfunction are all possible outcomes of rheumatic disease. The musculoskeletal system includes bones, ligaments, tendons, muscles, and joints. The most typical symptoms include stiffness, edema, aches and pains, weariness, malaise, fever, weight loss, and restriction of movement. Every kind of rheumatic disease has a unique set of symptoms and might impact different body parts.[(1).]

EPIDEMIOLOGY:
The first community-level investigations of rheumatic disorders were conducted in the early 1990s in a suburban region close to New Delhi. The prevalence of rheumatoid arthritis, spondyloarthropathy, SLE, and musculoskeletal problems in general were investigated under the direction of Professor AN Malaviya. In the first study, which involved almost 44,000 participants, musculoskeletal complaints were shown to be 8.5% prevalent. Osteoarthritis (1.89%) and non-specific musculoskeletal problems (2.07%) were the most frequent causes. In terms of inflammatory rheumatic conditions, 0.36% had seronegative spondyloarthropathy and 0.75% had rheumatoid arthritis. The second study estimated a population prevalence of 3 per 100,000 by screening approximately 52,000 individuals for lupus using both clinical criteria and antinuclear antibodies.

Global Burden of the Disease: According to reports from 2017, the annual incidence of musculoskeletal symptoms was 334,744.9 thousand, and the prevalence was 1,312,131.3 thousand. From 1990 to 2017, the number of disability-adjusted life years (DALYs) resulting from musculoskeletal symptoms grew by 38.4% (including 19.9% from 2007 to 2017). Osteoarthritis (303,096.5 thousand, most often osteoarthritis of the knee), neck discomfort (288,718.6 thousand), low back pain (576,989.9 thousand), and other musculoskeletal disorders (gout, rheumatoid arthritis [RA], etc.) were the most common musculoskeletal ailments. As a result, the global burden of musculoskeletal disorders is rising over time[(2).]
Bhigwan (1996–2014), the first WHO ILAR COPCORD (community oriented program for control of rheumatic diseases), showed that the most common self-reported condition in the community was musculoskeletal (MSK) pain, with soft tissue rheumatism, ill-defined MSK symptoms, and

osteoarthritis (OA) being the most common conditions. Inflammatory arthritis was present in approximately 10% of cases. With a point prevalence of 0.7%, rheumatoid arthritis (RA) was quite prevalent. Between 2004 and 2010, Bone and Joint Decade (BJD) India collected data from over 55,000 people at 12 locations across India through a series of uniform and standardized surveys.
According to recent surveys, the prevalence of the following conditions was pooled by age and sex adjusted (India census population 2001): RA (0.34), OA knees (3.34), undifferentiated inflammatory arthritis (0.22), spondyloarthritis (0.23), ankylosing spondylitis (0.03), psoriatic arthritis (0.01), soft tissue rheumatism (1.39), gout (0.05), and lupus (0.01); the prevalence percentage is shown in parenthesis. Hospital-based case series explain various types of vasculitis and collagen vascular diseases. TB and other musculoskeletal infections continue to pose a significant clinical burden. Chronic MSK pain and arthritis have been made worse by the 2006 Chikungunya outbreak in India.[3]
Among the most prevalent and incapacitating illnesses in the US are chronic musculoskeletal (MS) syndromes. These syndromes include diseases like rheumatoid arthritis (RA) and osteoarthritis (OA), as well as less specific but widespread issues including fibromyalgia, fibrositis, myalgias, and arthralgias.[4].

Risk factors are:
1. Many rheumatic diseases are influenced by genetic factors, and you are frequently at an increased risk if you have a family history of the condition.
2. You may be more susceptible to rheumatic disease due to other circumstances. For certain disorders, such polymyalgia rheumatica and RA, the risk increases with age.
3. Between early adulthood and middle age, other conditions are more prevalent. These consist of psoriatic arthritis, lupus, and scleroderma. People assigned female at birth are more likely to have a number of rheumatic disorders, such as RA, lupus, scleroderma, Sjogren's, and polymyalgia rheumatica. Those who are allocated male at birth are more likely to develop other rheumatic conditions including gout and AS.
4. It is believed that infection exposure might affect or precipitate the onset of certain rheumatic diseases, including lupus, scleroderma, and polymyalgia rheumatica[5].

Clinical features of Rheumatoid diseases [5].
Aches and pains, swelling, stiffness or limited range of motion, feelings of tiredness or fatigue, malaise or general feelings of being unwell, fever, weight loss.
Each type of rheumatic disease can affect different parts of your body and have unique symptoms.

- Rheumatoid arthritis (RA) is an autoimmune condition in which your joints are attacked by your immune system. Several joints may be impacted by RA at the same time. The most frequently targeted joints are those in your hands, wrists, and knees. Your immune system attacking these joints results in stiffness, discomfort, and inflammation. Joint degeneration may result from this. Individuals who have RA may experience joint abnormalities or possibly loss of joint function. As a systemic disease, RA can impact the neurological and gastrointestinal systems, as well as key body organs like the eyes, lungs, skin, heart, and kidneys. Additionally, it may impact the blood and result in anemia.

- Lupus : A persistent autoimmune condition called lupus can lead to inflammation all over your body. Your immune system is in charge of attacking and damaging your joints, heart, skin, kidneys, brain, blood, liver, lungs, hair, and eyes when you have this condition. This can cause inflammation, pain, and occasionally damage to your organs, joints, and tissues. Lupus is a serious condition that can occasionally be fatal.

- Scleroderma results in inflammation of your organs, connective tissues, and skin. On rare occasions, a person may develop joint and organ hardening without any visible skin symptoms. The

overproduction of collagen, a protein that builds up in the body, is the cause of scleroderma. Limited cutaneous scleroderma typically affects the skin of your hands, neck, knees, and elbows. It doesn't affect a person's trunk, upper arms, or legs.

- Sjogren's disease is an autoimmune disorder in which internal organs are attacked by your immune system. Although the disorder can affect any part of your body, it usually affects your lungs and the glands that generate tears and saliva, which results in dry eyes and mouth. Your joints, skin, and nerves are among the various body areas that may be impacted by Sjogren's disease. When this occurs, you could get neuropathy, dry skin, rashes, and joint or muscular pain.
- Ankylosing spondylitis (AS) is a type of inflammatory arthritis that targets your spine and can cause long-term stiffness and, in severe cases, immobility. AS is more common in women than men. Besides causing pain and stiffness in your lower back and pelvis, AS can also cause inflammation in other large joints such as your hips, shoulders, and ribs. A major indicator of involvement is inflammation of the sacroiliac joints. These join your pelvis to your lower spine. In more severe cases, the inflammation from AS can cause new bone to form on your spine, leading to stiffness and decreased range of motion. Inflammation and pain in your eyes can also occur.
- Gout happens when uric acid builds up in your body. If you have too much uric acid, it can form crystals in certain parts of your body, particularly your skin and joints. Uric acid buildup in gout can also contribute trusted Source to systemic inflammation and metabolic syndrome. People with gout experience joint pain, redness, and swelling. It often affects the big toe but can impact other joints as well.
- Psoriatic arthritis can affect people who have psoriasis, an autoimmune condition affecting the skin. The condition often develops after several years of living with psoriasis. Doctors don't know the causes of psoriatic arthritis. In addition to joint pain, swelling, and stiffness, the following are common symptoms of psoriatic arthritis, a very swollen finger or toe, problems with nails, such as pitting or separation from the nail bed, swelling of the Achilles tendon or inflammation at other tendon attachments, known as enthesopathy, low back pain with or without the involvement of the sacroiliac joints
- Infectious arthritis occurs due to bacterial, viral, or fungal infections. When an infection spreads to a joint, the immune system reacts to fight it. The resulting inflammation can cause pain and swelling, damaging the joint. Infectious arthritis typically only occurs in one joint. The condition often affects a large joint such as the hip, knee, or shoulder. It tends to be more common in children, older adults, and people who misuse drugs.
- Juvenile idiopathic arthritis (JIA) is a group of arthritic conditions in children and teens. The six subtypes of JIA are:

i. Oligoarthritis: This is the most common type of JIA and occurs in four or fewer joints.
ii. Polyarthritis: This JIA subtype occurs in five or more joints.
iii. Systemic: Systemic arthritis occurs across your body and may accompany a rash and fever.
iv. Psoriatic arthritis: Psoriatic arthritis causes scaly skin rashes and typical joint inflammation.
v. Spondyloarthritis: This affects your muscles, tendons, and ligaments in joints.
vi. Undifferentiated: When a person's arthritis symptoms don't fall under other categories, doctors term it undifferentiated.

- Polymyalgia rheumatica is an inflammatory condition that leads to pain or stiffness in your shoulders, neck, and hips. It often occurs alongside giant cell arteritis (GCA) but can also occur independently. GCA is the inflammation of blood vessels in your head and neck. Around half of all people with GCA have polymyalgia rheumatica. Symptoms are often worse in the morning. You may also have flu-like symptoms, including fever and weakness. The cause of this condition is unknown.

- Vasculitis is a condition where inflammation occurs in the walls of the blood vessels. There are four main subtypes of vasculitis.

i. ANCA-associated vasculitis: These types of vasculitis affect small-to-medium-sized blood vessels and can involve multiple organs.
ii. GCA and Takayasu arteritis: These types of vasculitis typically affect medium and large-sized blood vessels.
iii. Polyarteritis nodosa: This type of vasculitis causes inflammation and tissue death in medium-sized arteries.
iv. Kawasaki disease: This is a medium-vessel vasculitis that predominantly affects children.

Investigation [6]

1. The rate at which red blood cells descend through a liquid column is measured by ESR. ESR can occasionally be useful in differentiating between conditions that are inflammatory and those that are not. Although this test is not diagnostic and may increase in other disorders such infections, cancer, anemia, and some other diseases, it may be helpful for monitoring individuals with rheumatoid arthritis and polymyalgia rheumatica.
2. Autoantibodies that target the Fc region of IgG are known as rheumatoid factors (RF). The term "rheumatoid factor" is misleading because it may not indicate rheumatoid arthritis. Only 60% of rheumatoid arthritis patients get a positive rheumatoid factor test at diagnosis. Other connective tissue disorders such primary Sjögren's syndrome and systemic lupus erythematosus (SLE) can also cause RF.
3. ELISA tests with excellent specificity and sensitivity for RA are based on either synthetic citrullinated peptides or filaggrin generated from human skin. Some people with systemic lupus erythematosus, other autoimmune diseases, connective tissue disorders, and certain non-rheumatic conditions including chronic hepatitis C may have positive results for CCP antibodies.
4. Patients with a variety of viral or inflammatory disorders have blood serum that contains C-reactive protein, which is produced by the liver during times of inflammation. Compared to the ESR, the C-reactive protein is more accurate and does not increase with anemia.In contrast to the ESR, CRP is not influenced by hemoglobin concentration and can be determined from preserved serum samples.
5. There are several types of antinuclear antibodies (ANA), and some are linked to certain diseases. One of the eleven criteria used to diagnose SLE is a positive ANA. In 98% of SLE patients, 40% to 70% of patients with various connective tissue disorders, up to 20% of patients with autoimmune thyroid and liver disease, and 5% of healthy persons, the ANA test is positive.
6. Immune-complex diseases including SLE and other specific types of vasculitis result in decreased complement levels. Although complement testing is not useful for SLE screening, it is frequently used to track disease activity in SLE patients.
7. Measuring serum uric acid helps track the degree of hyperuricemia in gout patients. Unfortunately, due to the high prevalence of asymptomatic hyperuricemia, this will not aid in the diagnosis. Only joint aspiration, which verifies the presence of urate crystals under polarized light, can definitively diagnose acute gout.
8. Specific antinuclear antibodies derived from blood are known as extractable nuclear antigens (ENAs). Although there are many ENAs, the majority are employed in research.
9. Antineutrophil cytoplasmic antibodies (ANCAs) are autoantibodies to the cytoplasmic constituents of granulocytes. ANCAs characteristically occur in vasculitic syndromes.

It should be noted that in rheumatology, laboratory testing hardly ever "makes" a diagnosis. When used to confirm or deny a clinical impression, it is most useful. Understanding false-positives and false-negatives is crucial. Still, the key to a proper diagnosis is a comprehensive physical examination and a complete history. Therefore, relying solely on the "arthritic screen" offered by commercial laboratories is not a good idea.

The top Homeopathic therapeutic medicines for rheumatoid disorders [7]

- Rhus Tox lowers inflammation in the joints, which helps to ease stiffness and pain. Joint stiffness is most common in those who require it in the morning and after a time of inactivity. Additionally, massaging the joint provides alleviation.
- Bryonia Alba: In situations where joints are swollen, heated, and red, bryonia is beneficial. In addition, there is joint soreness. Sharp, stitching-type aches are experienced. Motion exacerbates the discomfort, while rest alleviates it. When mostly the knee and elbow joints are affected, it is indicated.
- Actaea Spicata is mostly administered for wrist pain and swelling. Heat makes the wrist red as well. Motion makes the ache greater. It can also be used to relieve swelling and pain in other tiny ankle, toe, and finger joints.
- Caulophyllum: Small joint arthritis can also be treated with caulophyllum. When necessary, the tiny joints are tight and unpleasant. In these situations, the ankle, wrist, toe, and finger joints are impacted. The agony continues to move from one joint to another over the course of minutes. Nodes can occasionally be found on finger joints.
- Arnica is mostly used for really sore joints. Because of the discomfort and tenderness, the person is extremely afraid to touch the affected joint. In addition, there is severe swelling and sharp, bruised pain in the knee.
- Ledum Pal: movement-induced ankle discomfort has been worse. They can have ascending rheumatism, a condition in which pain begins in the joints of the foot and moves up to the joints in the legs above them.

Some of mother tincture which are useful [8]

1. Belladonna Q: In cases of stiffness and acute affections, when the pain is worse to the touch and to movement and comes and goes like electric shocks
2. CALOTROPIS GIGANTEA Q: Recommended for rheumatism that lasts a long time. There is a cramping discomfort in the middle of the right palm when holding anything. Wrist joint pain gets worse when you move.
3. A particular treatment for acute rheumatism is CURCAMA LONGA Q.
4. EUPATORIUM PERFOLIATUM Q: Pain in the flesh and aching in the bones of the extremities. wrist and arm pain. Great toe swelling on the left
5. GAULTHERIA OIL: Beneficial for rheumatic arthritis pain
6. GINSENG Q: To treat sciatica, lumbago, and rheumatism. Urine production rises and joints become rigid and constricted.
7. Inflammatory rheumatism (GUAICUM Q). It helps with lumbago following mercury addiction or syphilis dependence, as well as chronic rheumatism of the upper extremities.
8. HYDROPHILIA SPHINOSA Q: A targeted treatment for severe rheumatism.
9. PASSIFLORA INCARNATA Q: Promote sleep and lessen rheumatism
10. PROPYLAMINUM Q: Reduces fever and pain in acute rheumatism within a day or two.Particularly with heart lesions, rheumatic aches shift location. Ankle and wrist pain that gets worse with little movement. Things cannot be held in the fingers. Finger tingling and numbness

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