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Muscles and Joints - Systemic Lupus Erythematosus

Bone and Joint Involvement

Involvement of joints is the most frequent manifestation of S.L.E. being the initial symptom in up to 80% of patients. When joint inflammation is present in the hands they feel stiff and painful especially in the morning, and the stiffness may last for 1-2 hours in the morning.

1. The knees, wrists and hands are the most frequent areas involved and the pain and swelling and stiffness that occurs is often intermittent at first, with episodes lasting for 1-2 days at a time. Later the symptoms can become more persistent. The joint involvement of S.L.E. is much milder and much more responsive to therapy than the joint involvement in rheumatoid arthritis. Early in the disease it can be confused with early rheumatoid arthritis or even a viral arthritis.
2. Deforming arthritis is much less common, and severe hand deformities occur in less than 10%. The fingers may deviate towards the little finger side of the hand as occurs in rheumatoid arthritis, however, x-rays do not show the bony destruction that occurs in rheumatoid arthritis. This pattern of non-erosive deforming disease is referred to as Jaccoud's syndrome.
3. Occasionally patients can develop features both of rheumatoid arthritis and S.L.E. and develop joint erosion. This however, is very uncommon.

The symptoms usually respond to anti-inflammatory drugs and some may require plaquenil (hydroxychloroquine) and a few patients may require prednisone (cortisone) for control of their symptoms.

There are two unusual joint complications that can occur in S.L.E.

1. Avascular necrosis of bone. This may occur in up to 5-10% of patients with S.L.E. The cause is unknown and various theories include vasculitis (inflammation of blood vessels), the effects of cortisone, or blood clotting tendencies. In this condition part of the bone loses its blood supply and dies causing necrosis (death of part of the bone) in that area. This then causes severe pain in the joint involved and later collapse of that joint. The most common site is the hip, and if this does occur it usually requires a total joint replacement.
2. There is a higher risk of infection in a joint and if one joint becomes very painful and swollen it is important to exclude infection. This is done by taking fluid from the joint with a needle and testing the fluid for infection.

Muscle Involvement

1. Muscle involvement in S.L.E. is not uncommon. Myalgia (aching in muscles) is present in up to 30% of patients, but only a small percentage have definite inflammation in muscles. Often the myalgia is related to referred pain from a painful joint.
2. When muscle disease does occur it is usually mild and the symptoms always settle with prednisone (cortisone). The pain is usually felt mainly around the shoulders and hips.
3. Occasionally a more severe muscle inflammation can occur with severe pain and weakness around shoulders and hips with difficulty in arising from chairs and elevating

the arms. Some of these patients may have an overlap syndrome with features of S.L.E., polymyositis and scleroderma (Mixed Connective Tissue Disease) and these patients usually require higher doses of cortisone for control.

Tendon Involvement

1. Tenosynovitis (inflammation of the lining of the tendons) occurs in about 7% of patients. The hands are the main areas involved.
2. Occasionally a tendon rupture can also occur, the most frequent being the Achilles tendon at the back of the ankle and the infra-patellar tendon just below the kneecap of the knee. It is possible that these tendon ruptures relate to prednisone (cortisone) used in treating the disease.

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Date Written: December 1999

Reviewed Date: 19th July 2007

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